Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20544

In the Matter of:	
Structure and Practices of the Video Relay Service Program	CG Docket No. 10-51
Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities	CG Docket No. 03-123

COMMENTS OF SORENSON COMMUNICATIONS, LLC REGARDING PART III AND SECTIONS IV.C-E AND G-H OF THE FURTHER NOTICE OF PROPOSED RULEMAKING

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Table of Contents

COMMENTS OF SORENSON COMMUNICATIONS, LLC REGARDING PART III AND SECTIONS IV.C-E AND G-H OF THE FURTHER NOTICE OF PROPOSED RULEMAKING

Sorenson Communications, LLC ("Sorenson") hereby comments with respect to Part III and Sections IV.C-E and G-H of the Further Notice of Proposed Rulemaking regarding Video Relay Services ("VRS").[1]

SUMMARY AND INTRODUCTION

I. Sorenson supports the Commission's efforts to evaluate the performance of all its Telecommunications Relay Services ("TRS"), including VRS. In doing so, the Commission should evaluate the extent to which it is fulfilling all of the statute's directives—ensuring that "functionally equivalent" communications services are "available" to deaf Americans "to the extent possible and in the most efficient manner." This evaluation should include analyzing the extent to which VRS providers are delivering "functionally equivalent" service, meaning, as the Consumer Groups have correctly emphasized, that persons receiving or making relay calls must be "able to participate equally in the entire conversation . . . as if the call is between individuals who are not using relay service";[2] the extent to which VRS is available "to the extent possible" to American Sign Language ("ASL") users; and the costs being borne by VRS users in comparison with those that hearing users pay for basic telephone connectivity.

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1 *Structure and Practices of the Video Relay Service Program; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Report and Order, Notice of Inquiry, Further Notice of Proposed Rulemaking, and Order, 32 FCC Rcd. 2436, 2017 WL 1167513 (rel. Mar. 23, 2017) ("*NOI*," "*FNPRM*," or "*Order*").

2 Consumer Groups' TRS Policy Statement at 1, attached to Letter of Tamar Finn and Brett Ferenchak, Counsel to TDI, to Marlene H. Dortch, Secretary, FCC, CG Docket Nos. 03-123 and 10-51 (filed Apr. 12, 2011).

In conducting this evaluation, however, the Commission must recognize that some dimensions of VRS performance may be extremely difficult to measure. Fortunately, the market provides appropriate incentives and mechanisms for ensuring strong provider performance. Interpretation quality, for example, will be extremely difficult to assess because of the prohibition against recording calls, the variation among different ASL speakers with respect to signs used and styles of signing, and the wide variety of topics and situations encountered in real-life VRS interpreting, including highly technical topics or stressful settings like emergencies. Notably, however, the Commission has already taken many steps to ensure that deaf consumers can choose and move between VRS providers—and the result is that the market itself effectively polices interpreting quality. As the Commission examines whether to require testing of specific metrics, it should make sure that the benefits of the metric, especially for consumers, outweigh the costs of implementing and collecting data about the metric, and that the metric will not be significantly misleading by having too many false positives or false negatives that undermine its utility. In addition, the Commission should bear in mind that, while continuing to improve VRS quality is important, such improvements will almost certainly increase the cost of providing VRS, which will need to be recognized in VRS rates.

For any performance metrics that the Commission does establish, it is critical to have independent third parties conduct performance measurements. If the Commission attempts to measure interpreter quality through these measurements, such third parties must assess performance in the specific context of relayed calls, which are significantly different from other ASL-English and English-ASL communications. Individuals conducting the evaluations must be trained to all use the same criteria when assessing relayed calls across providers. Those criteria will need to be developed for the specific context of VRS interpretation, because the standard

national or regional English-ASL evaluations for in-person communication skills are not directly applicable to VRS. Sorenson supports having the independent third parties make the results of data collection regarding performance available to VRS users and the general public as long as the results are put in a format that is understandable and usable by consumer groups, do not divulge confidential information about calls or identify specific video interpreters ("VIs"), and are based on aggregate and agreed-upon criteria with the VRS providers contributing to create the measurement and report tool.

II. The Commission should clarify that VRS providers may terminate calls made to harass interpreters, but may not otherwise monitor call content and terminate calls that appear to be unethical or illegal. The Commission should recognize that while the former category of so-called "phony" calls does not qualify as compensable VRS calls, the latter involves actual attempts to place calls that are functionally equivalent to calls placed by hearing users. The Commission should not put interpreters in the impossible situation of determining whether a call involves a scam or crime. The alternative—requiring interpreters to monitor call content and terminate calls that appear to be unethical or illegal—violates the principle of functional equivalency, would be impossible to administer, and upends confidentiality and privacy.

III. With respect to the remaining sections of the *FNPRM*, Sorenson's overarching concern is that the Commission not pursue costly regulation that is likely to result in minimal, if any, benefit, and will harm functional equivalency. There is very little risk that public or enterprise phones will be used to place ineligible calls—and there is no good reason to impose the costly and burdensome proposed login and PIN requirements to reduce a risk that the *FNPRM* itself acknowledges is negligible.

Moreover, if the definition of public phones is too broad, the proposed mandate for a login and PIN could impede use in a shared office, educational, or living environment. The login and PIN proposal would also effectively prevent deaf users from using public phones provided by competing providers. Not only does this diminish the utility of public phones, but it is not consistent with the functional-equivalence requirement of the Americans with Disabilities Act ("ADA"). In addition, the login requirement is likely to discourage the use of public phones more generally. Expecting users to establish and memorize a login for each VRS provider is unrealistic—particularly for the elderly, children, and individuals with cognitive disabilities, who may have difficulty not only remembering a PIN but also figuring out how to enter it.

Regarding the proposal to allow direct video calling customer support services access to the TRS Numbering Directory, the Commission first must ensure that any such decision avoids unintended consequences such that consumers are deprived of a choice in whether to use point-to-point calls or traditional VRS for customer service. Second, and relatedly, the Commission must consider and address security and consumer protection issues. Finally, if non-VRS providers are permitted to access the TRS Numbering Directory, the Commission must subject these providers to the same rules as VRS providers to avoid a regulatory disparity.

Sorenson does not object in principle to allowing providers to validate calls by querying either the URD or the Numbering Directory. The Commission should, however, wait at least twelve months after the URD and Numbering Directory are in full production before requiring providers to begin validating calls for the purpose of determining compensability—or worse, before the Numbering Directory blocks routing information for users not found to be qualified. This will allow time for the databases to become fully populated and teams to resolve technical issues. Because the URD and its link to the Numbering Directory will be immature technologies

when they go live, there is a significant risk that undiscovered technical errors could prevent valid VRS calls from being routed. Once the call validation requirement takes effect, the Numbering Directory administrator has reported it will not provide routing information for any call that fails to satisfy certain conditions, including if there are discrepancies between the iTRS database and the URD—for example, during phone number transitions (porting) from one provider to another. Any such discrepancies—including problems resulting from errors in URD data or software errors in the databases—could improperly prevent legitimate calls from being validated, which would in turn keep VRS users from placing calls they are allowed to make. This would be particularly troubling, and potentially even life-threatening, in the case of calls for critical services.

Next, Sorenson supports the Commission's goal of eliminating providers' ability to entice customers away from their default providers by giving away free, non-VRS-related items, and believes the rules currently in effect achieve that purpose. However, the Commission must preserve providers' ability to offer to VRS users appropriate, service-related equipment—that which is "integral to the provision, continuation and enhancement of quality VRS services" to which VRS users are statutorily entitled. This includes videophones, monitors (including televisions), routers and connecting cables.

Finally, the Commission should not *per se* restrict the use of noncompete clauses in VRS VI contracts. Noncompete clauses are commonly used in many industries to preserve companies' trade secrets and investments, and courts, commentators, and economists have long recognized that they serve legitimate business purposes. These clauses serve the same role for Sorenson, which invests heavily in training its VRS VIs and inventing new products and technologies to best serve its customers, and thus should be judged under a rule of reason.

Sorenson would be discouraged from making equally substantial investments if it knew that its VRS VIs could take both their training and the company's confidential information to Sorenson's competitors at any time. In the long run, restricting reasonable noncompete clauses will only harm VRS customers. Moreover, absent proof that noncompete agreements *per se* undermine functional equivalency, without offsetting pro-consumer, pro-competition benefits, the Commission lacks the authority to regulate such agreements under § 225(d)(1)(A). In any case, the Commission should continue to allow states to monitor and regulate noncompete agreements, including policing the line between reasonable and unreasonable agreements, as the issues are no different for video interpreters than for other highly skilled employees such as software engineers.

ARGUMENT

I. THE COMMISSION SHOULD CONSIDER PERFORMANCE MEASUREMENTS FOR ALL THE STATUTORY REQUIREMENTS.

Title IV of the ADA requires the Commission to ensure that communications services that are "functionally equivalent" to those available to hearing individuals are "available" to deaf Americans "to the extent possible and in the most efficient manner." The ADA establishes a civil right for deaf Americans—the right to functionally equivalent communications services. In adopting Title IV, Congress made its desire to eliminate "discrimination on the basis of disability in . . . telecommunications" unmistakably clear.[3] Congress indicated that the statute requires the Commission to pursue the "full attainment of universal service"[4]—hence the emphasis on

[3] H.R. REP. NO. 101-485 pt. II at 28 (1990).

[4] *Id.* at 129.

ensuring that communications services "functionally equivalent"[5] to those enjoyed by hearing Americans be made available to the deaf and speech-impaired community "to the extent possible."[6] Moreover, the statute mandates that the Commission must ensure the provision of these services at "rates no greater than the rates paid for functionally equivalent voice communication services,"[7] and in a way that does not "discourage or impair the development of improved technology."[8]

A. The Commission Should Consider Studying Whether VRS Is Available to the Extent Possible.

It is clear that VRS is the communications service that, for ASL users, is most functionally equivalent to voice communication by telephone. Accordingly, whether VRS is "available, to the extent possible," is a key question. Whether VRS is available "in the most efficient manner" is also important, but does not limit the right to functionally equivalent service. Rather, in this context that phrase requires the most functionally equivalent service—VRS—to be provided to *all* ASL users in the most efficient manner.

Accordingly, in addition to the issues raised in the *NOI*, the Commission should consider measuring the extent to which VRS is available to deaf ASL users, and the costs borne by those who do use VRS. For example, the Commission could consider measuring the percentage of deaf ASL users who currently lack access to VRS but who might benefit from VRS if encouraged through effective outreach. The Commission could measure the number of potential VRS users for whom the cost of the high-speed broadband service necessary for VRS is

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5 47 U.S.C. § 225(a)(3).

6 *Id.* § 225(b)(1).

7 *Id.* § 225(d)(1)(D).

8 *Id.* § 225(d)(2).

prohibitive or who lack access to high-speed broadband regardless of cost. In addition, the Commission could measure the extent to which regulatory requirements such as having a permanent residence function as barriers to obtaining VRS. Looking to the future, the Commission should take steps to avoid requirements that will lead to disapproval of qualified users by the URD—which testing has shown to be a potentially significant problem.

The Commission could also seek to measure the extent to which businesses, government agencies, and others refuse to participate in VRS calls. Anecdotal evidence suggests that many hearing individuals hang up on VRS calls because of wait times or because, unaware of how VRS works (or, perhaps, even of its existence), they mistake a video interpreter for a solicitor. All of these types of barriers to VRS access undermine Congress's goal of universal availability of VRS.

B. The Commission Should Consider When Market Actions by VRS Users Can Ensure Service Quality, and When Additional Measures May Provide a Net Benefit That Exceeds the Costs.

In the VRS marketplace, providers compete entirely on the basis of service quality. Because they are not locked into long-term contracts, VRS consumers are at least as free as consumers of voice telecommunications services generally to "vote with their feet."

Moreover, VRS users are uniquely able to compare the quality of different providers. A user who has multiple providers' videophones, which is not uncommon, will easily be able to judge the quality of the interpreting of different providers. All providers have downloadable videophones. In addition, users may dial around their default provider or download multiple mobile apps to test various providers.

Given this competitive environment, the Commission should carefully consider whether and under what circumstances there may be a need for data collection to ensure that VRS users are receiving quality service. As a result of competition, VRS providers have steadily improved

the quality of their hardware, software, and customer service to continue to attract customers. The Commission should consider whether additional regulation through data collection would be a net benefit—since *consumers* currently drive service improvements in the VRS marketplace by selecting the services they prefer. In adopting any performance measures, the Commission should consider the extent to which the information will assist users in choosing among providers, balanced against the costs imposed by such a data collection.

C. Responses to the Specific Questions Raised in the *NOI.*

Definition of Functional Equivalence. Sorenson wholeheartedly agrees with the statement in paragraph 62 that in order for "VRS to be functionally equivalent to voice telephone services," providers must offer "levels of service that are equivalent to those experienced in mainstream wireless, wireline, and voice over Internet protocol (VoIP) communication calls between and among hearing persons." In addition, the definition provided by Consumer Groups, quoted in paragraph 62, correctly emphasizes that persons receiving or making relay calls must be "able to participate equally in the entire conversation . . . as if the call is between individuals who are not using relay service." Under those tests, it is clear that the appropriate comparison is between VRS and voice telephone service. To the extent that paragraph 64 suggests that VRS users could be required to use e-mail or real-time text instead of VRS, those services plainly fail to satisfy the functional-equivalence requirement.[9] Deaf consumers, like hearing consumers, already use those services when it is useful and convenient to do so; the ADA also allows them the same freedom as hearing consumers to have an unfettered choice to use the functional equivalent of *telephone* service. That requires universal access to VRS.

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[9] *See* Exhibit A, Samuel R. Bagenstos, *The Proper Interpretation of "In the Most Efficient Manner" in Title IV of the Americans with Disabilities Act*, 3 (May 26, 2017).

Use of an Independent Third Party. Paragraph 66 of the *NOI* seeks comment on whether any data collection efforts "should be overseen by the TRS Fund administrator . . . or . . . through . . . arrangements with third parties selected by the Commission." The Commission tentatively concluded that "performance measures will have greater efficacy if the measurements and reports of results are conducted independently, *i.e.*, not by the regulated entity."[10] Paragraph 66 also seeks comment on whether to "publish the metrics achieved for each provider," and whether to "develop[] a system by which VRS users can rate the quality and performance of VRS calls."[11] Sorenson agrees that any effective program for measuring performance should be conducted by a third party. Such a third party would, of course, need to be neutral—i.e., unaffiliated with any existing provider. Sorenson agrees that the results of any performance measurements should be made publicly available by a neutral third party.

Challenges in Measuring Interpretation Quality. Paragraphs 68-72 pose a variety of questions regarding how to measure the quality and accuracy of VRS interpretation. As noted above, the most important metric of VRS quality is consumer satisfaction with a particular provider's service. VRS consumers will naturally gravitate quickly toward the service with which they are most satisfied.

In any event, it is important to understand that measuring the accuracy of VRS interpretation—as proposed in paragraphs 69-70—is, to say the least, a challenging problem. VRS interpreting is unique and demanding. Often interpreting for deaf individuals involves interpreting in only one direction—for example, interpreting speeches, classes, or other

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[10] *NOI* ¶ 66.

[11] *Id.*

presentations from English to ASL so that deaf individuals can understand a hearing speaker. VRS interpreting, in contrast, requires interpreting *both* sides of a conversation.[12] And VRS is more difficult and complex than even most bidirectional interpreting because it requires interpreters to adapt quickly to different signers, novel (and often very personal) content, and unknown relationships between callers. At the same time, VRS is still relatively new, so there has not been time for an extensive body of literature to develop on the topic of VRS interpreting. Among the leading researchers in this area is Marty Taylor, Ph.D., who produced a detailed 2009 reported entitled *Video Relay Services Industry Research: New Demands on Interpreters*. That report both surveyed pre-existing literature—including a 2005 *Video Relay Services Interpreting Task Analysis Report* funded by the U.S. Department of Education in which Sorenson participated—and examined in detail the skills, knowledge, and personal attributes required for successful VRS interpreting, as well as examining feedback from VRS users and making recommendations for continuing to improve VRS.

It would be impractical to summarize all of the attributes necessary for successful VRS interpreting here but, again, the uniqueness of VRS interpreting makes evaluating its quality and accuracy unusually difficult. Contrary to the suggestion in paragraph 69 of the *NOI*, "metrics and methods" used to evaluate spoken language interpreters are not likely to be particularly relevant. Given the nature of communicating in ASL—which is as dependent on facial expressions and variations in signing as on the specific signs employed[13]—"word-by-word"

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[12] Notably, even without the additional complications of VRS, interpreting in both directions is enormously challenging. Recent studies have shown that ASL-English interpreters, on average, are not linguistically fluent in ASL. *See generally* M. M. Taylor, *Interpretation Skills: English to American Sign Language* (2nd Ed. 2017).

[13] Assessing accuracy in ASL-English interpretation, for example, requires rating not only sign-specific metrics such as velocity, but also body language including such things as eye blinks,

evaluation is not a useful metric. Faithfulness or fidelity in interpretation is a highly complex concept that includes both accuracy—a vital component of which is meaning, both covert and overt—as well as completeness. And while "user-perceived quality" of interpretation is certainly important, this is best measured by a provider's success in attracting and retaining users, and has little direct bearing on *accuracy* of interpretation. That is because VRS users have access to only the interpreter's side of the communication with the hearing user—they have no way to directly compare what that user says to what the VRS interpreter communicates. Accordingly, any rating by individual VRS users is not an evaluation of *accuracy*, although it may be a measure of user *satisfaction*.

Evaluating the accuracy of VRS interpretation is further complicated by the fact that none of the standard national or regional English-ASL tests—including those of the Registry of Interpreters for the Deaf ("RID"), the Association of Visual Language Interpreters of Canada ("AVLIC"), the Texas Health and Human Services' Board for Evaluation of Interpreters ("BEI"), and the Educational Interpreter Performance Assessment ("EIPA")—assess specifically for VRS interpretation skills. Those tests instead target in-person communication. As a result, measuring VRS interpreting skills such as turn-taking and managing conversations where the interlocutors do not see or hear each other—not to mention more technical skills such as managing phone trees—will require creating VRS-specific metrics.

Paragraph 71 asks about "synchronicity" in VRS interpretation. Like the concept of word-for-word translation, however, synchronicity is not a helpful measure of the quality of

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head nods, and body movements. *See, e.g.*, B. Nicodemus & K. Emmorey, *Directionality in ASL-English Interpreting: Accuracy and Articulation Quality in L1 and L2*, Interpreting 17(2), 145-66 (2015) (retrieved from http://login.ezproxy.library.ualberta.ca/login?url=http://search.proquest.com/docview/1738471331?acountid=14474).

ASL-to-English or English-to-ASL communication. For VRS users, interpreting begins when eye contact with the interpreter is made and continues throughout the call. But the communication of emotion, for example, is not necessarily linked to specific words said by the hearing user—the interpreter's job is to convey the meaning of the hearing and deaf VRS users to each other over the course of the call.[14]

***Technical Quality*.** Paragraph 73 asks about technical quality. As an initial matter, Sorenson strongly agrees that "[o]ptimizing video clarity . . . appears to be essential to ensuring effective communication on the video (ASL) leg of a VRS call." That is why Sorenson provides high-quality transmission service and high-quality reception devices, and why research and development to improve these functions should be an allowable cost, even when they go beyond mandatory minimum standards. High-quality service is essential to providing functionally equivalent service, and goes far beyond simple frame rate and frame size. Elements range from video performance in different lighting conditions to processes of video encoding, such as the use of macroblocks.[15] It should be straightforward for VRS providers to deliver information on most of the specific variables mentioned in paragraph 73, although it is not clear whether users will find information about the "frame rate" and "audio and video codec" useful. These concepts

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[14] To the extent that some degree of synchronicity is obviously desirable, it bears noting that an important study of synchronicity measuring the average time required for expert interpreters to render non-VRS interpretations found that *longer* processing times correlated directly to *fewer* errors. In other words, the interpreters with the *least* synchronicity produced the *best* interpretations as measured by the accuracy metrics of that study. D. R. Cokely, *Towards A Sociolinguistic Model Of The Interpreting Process: Focus On ASL And English* (1985) (unpublished Ph.D. dissertation, Georgetown University), (retrieved from http://login.ezproxy.library.ualberta.ca/login?url=http://search.proquest.com/docview/303335950?accountid=14474).

[15] *See generally Video Compression Picture Types*, Wikipedia (May 11, 2017), *available at* https://en.wikipedia.org/wiki/Video_compression_picture_types.

are more technical than some consumers are likely to understand. In answer to the question about high-definition audio, Sorenson does not believe that it contributes significantly to achieving functional equivalence.

Interoperability. Paragraph 74 addresses interoperability. The providers are analyzing interoperability along with MITRE, and Sorenson agrees that providing information on interoperability might be useful—and worth the cost of collecting since little or no work needs to be done in addition to the work that is already well under way.

Disconnected Calls and Outages. Paragraphs 75 and 76 address dropped or disconnected calls and service outages. It is not clear that any of the efforts to design and implement the measures relating to dropped or disconnected calls would be worth the effort in a marketplace where users can vote with their feet. The Commission already collects information about service outages, so there would be little additional cost in providing information on that subject. However, it would be important for the rules to be very clear concerning what providers are required to report so that users receive apples-to-apples comparisons.

Effect of Quality Measures on Compensation. With respect to all of these metrics, it is important to note that, as for speed-of-answer, there is a trade-off between speed and cost.[16] Interpreter cost is the largest cost input in the provision of VRS and excellent interpreters cost more than poor interpreters, all else being equal. VRS users should be able to communicate to the same extent as hearing individuals, and the Commission must realize that ensuring high standards requires adequate compensation rates.

In short, in adopting any metrics, the Commission should keep in mind that there is a relationship between performance metrics and cost. Fast speed of answer is an example of the

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[16] *See Sorenson Commc'ns, Inc. v. FCC*, 765 F.3d 37, 50-52 (D.C. Cir. 2014).

balance between cost and performance where improving performance also raises costs. For example, providers who operate with longer average breaks between calls are likely to have faster speed of answer, but at lower efficiency because they will have more interpreters on hand to handle any surges in call volume.

II. THE COMMISSION SHOULD CLARIFY THAT VRS PROVIDERS MAY TERMINATE CALLS MADE TO HARASS INTERPRETERS, BUT MAY NOT OTHERWISE MONITOR CALL CONTENT AND TERMINATE CALLS THAT MAY APPEAR TO BE UNETHICAL OR ILLEGAL.

The *NOI* seeks comment about how VRS providers should handle "phony" VRS calls—a category that it broadly defines to include calls that are made "for the sole purpose of harassing or threatening a CA" and calls that "involve scams or spoofing."[17] These calls actually fall into distinct categories, and the Commission should treat the two categories differently.

A. Calls Made for the Sole Purpose of Harassing the Interpreter Are Not VRS Calls.

Sorenson regularly receives calls the sole purpose of which is to harass the interpreter. Because the purpose of these calls is to harass the interpreter rather than to place a legitimate call, the *FNPRM* correctly recognizes that these calls do not appear to be legitimate VRS calls that must be handled in accordance with the Commission's rules.[18] When it receives such calls, Sorenson (1) terminates a call if it becomes clear that the sole purpose is to harass the interpreter, and (2) terminates the accounts of users who repeatedly engage in this sort of behavior in violation of their user agreement. Moreover, to the extent that a terminated user (or another user) seeks to harass Sorenson interpreters by repeatedly placing dial-around calls through another

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17 *NOI* ¶ 78.

18 *Id.*

provider, which also constitutes improper use under the terms of providers' user agreements, the Commission should make clear that providers may block that user's phone number or IP address.

In a similar vein, Sorenson has, in the past, had a small number of users who anonymously downloaded its software and then repeatedly dialed 911 without logging in or otherwise registering the device. In consultation with the Disability Rights Division Staff, Sorenson responded by disabling 911 from software that has been downloaded but never logged in. Once a user has used the software to login at least one time, it is possible to place a 911 call even if the software is logged out. The Commission should similarly clarify that this solution is consistent with its rules.

B. The Commission Should Not Put Interpreters in the Impossible Position of Monitoring Call Content to Terminate Calls That May Be Unethical or Illegal.

The *NOI* also mentions calls "that involve scams or spoofing,"[19] and as Sorenson has noted in its pending petition for a declaratory ruling,[20] this category also includes calls where the interpreter may suspect that the caller is committing a crime. Unlike calls designed solely to harass interpreters, however, these are VRS calls because they involve an actual attempt to place a phone call that is functionally equivalent to a call placed by a hearing user—albeit for a potentially improper purpose, just as is the case for an end-to-end voice call.

The Commission should adopt a rule to clarify that interpreters have an obligation to handle these calls regardless of whether they suspect a scam or criminal activity. As the Commission has previously noted, "CAs are intended to be 'transparent conduits relaying

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19 *Id.*

20 *See* Exhibit B, Sorenson's Petition for a Declaratory Ruling or Alternatively a Rulemaking Regarding Call Handling Obligations at 2, CG Docket Nos. 03-123 and 10-51 (filed Nov. 8, 2016).

conversations without censoring or monitoring functions,' and section 225 provides that CAs may not divulge the content of any relayed conversation."[21] Accordingly, "TRS providers have generally understood that they must relay all calls regardless of content"—even if the call is obscene, "threatens the called party," or "discusses past or future criminal content."[22] The limited guidance from the Consumer and Governmental Affairs Bureau has been consistent with this understanding. In a 2004 Public Notice, the Bureau indicated that under the current rules, a TRS provider may not attempt to intervene when it suspects that a caller is engaged in a criminal scam to defraud the called party. The Bureau stated that, although these calls "are illegal, and the Department of Justice and the FBI can investigate, due to the transparent nature of the CA's role in a TRS call the CA may not interfere with the conversation. The TRS statutory and regulatory scheme do not contemplate that the CA should have a law enforcement role by monitoring the conversations they are relaying."[23]

As Sorenson explained in more detail in its pending petition, the Commission should not put interpreters and providers in the impossible situation of determining, in real time on a snap-judgment basis, whether a call involves a scam or crime. The alternative—requiring interpreters

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21 *Telecommunications Relay Services and Speech-to-Speech Services for Individuals With Hearing and Speech Disabilities*, Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 19 FCC Rcd. 12,475, 12,572 ¶ 257 (2004) (quoting *Telecommunications Services for Individual wit Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990*, Report and Order and Request for Comments, 6 FCC Rcd. 4657, 4659 ¶ 13 (1991)).

22 *Id.* ¶¶ 255-56.

23 *FCC Reminds Public of Requirements Regarding Internet Relay Service and Issues Alert*, Public Notice, 19 FCC Rcd. 10,740, 10,740-41 (2004) ("Public Notice"); *see also Telecommunications Relay Services and Speech-to-Speech Services for Individuals With Hearing and Speech Disabilities; Misuse of Internet Protocol (IP) Relay Service and Video Relay Service*, Further Notice of Proposed Rulemaking, 21 FCC Rcd. 5478, 5480-82 ¶¶ 6-9 (2006) (citing Public Notice).

to monitor call content and terminate calls that appear to be unethical or illegal—violates the principles of functional equivalency, would be impossible to administer, and interferes with the important principles of confidentiality and privacy. Absent a court order or some other legal process, hearing callers ordinarily do not have their calls monitored by government-appointed third parties to determine whether the conversation may be illegal—and would not have their calls terminated on the basis of a mere suspicion of illicit purpose. Further, hearing callers do not have third parties making judgments as to whether one party may be taking unfair advantage of another. VRS interpreters also generally lack the legal training to determine whether call content is consistent with the law of a particular combination of jurisdictions, including where the calling and called parties are located, and where the interpreter is located; indeed, the vast majority of lawyers likely would be reluctant to make such snap judgments, especially if they could also be sanctioned for refusing to handle what was a legitimate VRS call.

Indeed, VRS interpreters generally do not even know the locations of the callers for whom they interpret, making it impossible to navigate the myriad of potentially applicable state laws. Sorenson operates more than 100 call centers in 43 states of the United States, 5 provinces in Canada, and Puerto Rico. Calls are distributed automatically to these call centers in compliance with the Commission's rules requiring generally that they be answered in the order received—which means that calls are essentially randomly distributed. In such an FCC-mandated system, it is literally impossible to construct a compliance system to match all the possible combinations of laws of 50 states, the District of Columbia and Puerto Rico, plus federal law, and forcing providers to do so would threaten the very existence of VRS (or indeed, any form of TRS). Attempting to enforce compliance with all state laws would frustrate the core purpose of section 225—to make available a nationwide, functionally equivalent TRS service.

Accordingly, the Commission should clarify that its rules preempt any state law and repeal any federal law that leads to such a result.

Perhaps most importantly, any exception to the rule of strict confidentiality and privacy of VRS calls would cause callers to fear that their calls were being broadly monitored, with the possibility that legal but unpopular speech or planned conduct would be turned over to law enforcement authorities. Deaf and speech-impaired individuals cannot, consistent with functional equivalence and the core purposes of the ADA, be subject to a lower expectation of privacy than hearing users of the ordinary telephone system. Any legal regime that leads deaf and hard of hearing consumers to believe they have less privacy than hearing users of the telephone network violates functional equivalence.

III. THE COMMISSION SHOULD NOT IMPOSE COSTLY, BURDENSOME, AND NEEDLESS REGULATORY REQUIREMENTS ON THE USE OF PUBLIC AND ENTERPRISE PHONES.

A. A Login Requirement Would Burden VRS Use Without Any Meaningful Waste, Fraud, or Abuse Protection.

The Commission's proposal to require users of enterprise or public phones "that are not located in private workspaces" to enter a login and password before placing or receiving every call is a solution in search of a problem.[24] As the *FNPRM* correctly recognizes, "given that most hearing people are not fluent in ASL, it will usually be obvious to the VI if an individual placing a call from such a videophone is ineligible to use VRS."[25] Moreover, given that a large percentage of the population has mobile phones, it is difficult to imagine why a hearing person who speaks ASL would use VRS to place a call to another hearing person. Yet this is the only potential scenario for waste, fraud, or abuse that a login requirement would address. In short,

[24] *FNPRM* ¶ 119.

[25] *Id.* ¶ 117 n.278.

there is very little risk that public or enterprise phones would be used to place ineligible calls—and there is no good reason to impose costly and burdensome regulatory requirements to reduce a risk that the Commission acknowledges is negligible.

Certainly any benefits of this proposal would not outweigh the concrete costs to deaf users' access to functionally equivalent VRS, VRS providers, and the TRS Fund. There is no evidence in the record that misuse is occurring, and common sense suggests that such misuse would be exceedingly rare. Sorenson's own experience confirms that the problem addressed by a login requirement simply does not exist. As the attached Declaration of Grant Beckmann demonstrates, the management of Sorenson is not aware of a single case of an ineligible user attempting to use a public or enterprise phone to place a VRS call.[26] For public phones, Sorenson requires users to self-certify their eligibility before using a public phone for a VRS call, which is a reasonable and less burdensome alternative to a login and PIN given that fraud or abuse is extremely unlikely.

Moreover, even if the Commission thought that misuse of VRS was occurring, the proposal goes far beyond addressing that misuse by requiring users to log in before placing *point-to-point* calls—a requirement that plainly has no benefit because point-to-point calls are not VRS calls and are not billed to the TRS Fund. In that circumstance, a login and PIN requirement will simply serve to block use of the device for a point-to-point call, without any offsetting anti-fraud or abuse purpose. For this reason, Sorenson today does not require a user of a public phone to self-certify eligibility prior to placing a point-to-point call.

At the same time, the Commission's proposed login requirement would impose significant costs—on users of public and enterprise phones, on VRS providers, and on the TRS

[26] *See* Exhibit C, Declaration of Grant A. Beckmann ¶ 15 ("Beckmann Decl.").

Fund. First, the proposal would effectively prevent users from placing calls from public phones served by entities other than their default provider. Under the proposal, a user could use a public phone only if he or she had pre-registered and established a PIN with the VRS provider that services that phone. As a practical matter, VRS users are unlikely to pre-register with multiple providers solely for the privilege of using that entity's public phones. As a result, the proposal would effectively prevent deaf users from using public phones provided by competing providers. Not only does this diminish the utility of public phones, but it is not consistent with the functional-equivalence requirement of the ADA.

Second, the proposal would interfere with the use of shared enterprise phones in deaf organizations. For example, under the current rules, a deaf school might place a videophone at a front desk staffed by multiple individuals, all of whom are deaf, so that it can be answered by whichever employee is available at the time. Under the proposed rule, however, this arrangement would not be feasible. Because a front desk is not a "workspace[] where access is limited to one individual,"[27] the employee answering the phone would have to login before answering each incoming call—a cumbersome process that is likely to result in calls being sent to voicemail rather than answered. Moreover, they would have to dial extra digits to place a call—something the Congress and the Commission long ago rejected as equivalent for choices facing hearing consumers.[28] In short, hearing employees are able to access shared phones to

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[27] *FNPRM* ¶ 120.

[28] *See* 47 U.S.C. § 153(17), 251(b)(3); *see also Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*; *Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*; *Area Code Relief Plan for Dallas & Houston, Ordered by the Public Utility Commission of Texas*; *Administration of the North American Numbering Plan*; *Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech-Illinois*, Second Report and Order and Memorandum Opinion and Order, 11 FCC Rcd. 19,392, 19,412 ¶ 34 (1996) ("We adopt our tentative conclusion that the dialing

receive and place calls without burdensome login requirements—and the ADA requires the same treatment for deaf people.

The login requirement is also likely to discourage the use of public phones more generally. Expecting users to establish and memorize a login for each VRS provider is unrealistic—particularly for the elderly, children, and individuals with cognitive disabilities, who may have difficulty not only with remembering a PIN but also with figuring out how to enter it. Ironically, these are the users most likely to depend on public or semi-public phones. For example, children who do not own a cellphone may depend on a shared phone in a recreation center. And putting aside the difficulties of memorizing a PIN, the login requirement would also make it virtually impossible to receive calls at a public phone, since any user would need to be automatically logged out after a short period of inactivity in order to prevent misuse of the user's credentials.

The proposal would also impose significant costs on VRS providers and ultimately on the TRS Fund. To comply with the proposed new rules, providers would have to develop new user interfaces for enterprise and public phones—a significant undertaking that would take twelve to eighteen months and would divert engineering resources from other, more pressing issues (such as implementing SIP, improving call quality, and developing address book portability).[29] Providers would also have to expend significant resources distributing usernames and passwords

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parity requirement for toll calling can best be achieved through presubscription because that method would enable customers to route a particular category of traffic to a preselected carrier without having to dial access codes. We note that the use of access codes to route calls among competing providers of telephone toll service is precluded under the statutory definition of dialing parity.").

[29] Beckmann Decl. ¶¶ 16, 17.

to users. Each of these tasks would cost a significant amount of money. While it is impossible to say exactly how much these changes will cost, Sorenson estimates that redesigning its user interface alone would cost between $500,000 and $1 million.[30] And that cost would ultimately be quadrupled because each of the other providers would have to make these changes, and the costs of recoding a user interface do not depend on market share. These costs, which would be allowable research and development costs because they are necessary to meet a Commission requirement, would ultimately flow through to the TRS Fund.

B. The Commission Should Provide Adequate Time for Providers to Comply with Any New Information-Collection Requirements.

In general, Sorenson does not object to the Commission's proposal to require providers to submit information about public and enterprise phones—with one exception. The Commission should make clear that providers may omit an organization's tax ID number if the organization does not have a tax ID number. In addition, to avoid service gaps, the Commission should ensure that providers have adequate time to collect the required information and forms. Sorenson respectfully suggests that ninety days would be more realistic than the sixty days proposed in the *FNPRM*.

IV. DIRECT VIDEO CALLING CUSTOMER SUPPORT SERVICES SHOULD BE ALLOWED TO ACCESS THE TRS NUMBERING DIRECTORY ONLY AFTER SUFFICIENT SAFEGUARDS ARE IN PLACE.

Although Sorenson supports the responsible use of dedicated numbers for point-to-point calls and greater choice for deaf consumers, it has already expressed thoroughly its views regarding the Commission's decision to allow one provider of direct video calling ("DVC")

[30] *Id.* ¶ 17.

customer support services—VTCSecure—access to the TRS Numbering Directory.[31] The concerns that Sorenson raised there are similarly applicable to any Commission proposal that would permit access to the TRS Numbering Directory to *all* providers of DVC customer support services.

Here, the Commission first must ensure that any such decision avoids unintended consequences such that consumers are deprived of a choice in whether to use point-to-point calls or traditional VRS for customer service. Second, and related to the first, the Commission must consider thoroughly and address security and consumer protection issues. Finally, if non-VRS providers are permitted to access the TRS Numbering Directory, the Commission must subject these providers to the same rules as VRS providers to avoid a regulatory disparity between different types of providers that offer service to deaf consumers.

A. The Commission Should Only Allow DVC Providers to Place Separate and Distinct ASL-Capable Numbers in the TRS Directory.

Sorenson has previously explained the major risk involved with allowing the placement of general service numbers into the database—specifically, it will likely lead to unintentionally foreclosing effective consumer choice.[32] If DVC providers can place general customer service numbers into the TRS Directory, every VRS call will need to be routed through the DVC provider, rather than through VRS. This leads to two possible outcomes, neither of which is ideal for deaf consumers. First, without further action, DVC providers could conceivably decline to offer VRS as an option for customer service calls, which is completely unacceptable. As the

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[31] *See* Petition for Reconsideration of Sorenson Communications, LLC, CG Docket Nos. 03-123 and 10-51 (filed Feb. 16, 2017); Sorenson Reply Comments to Petition for Reconsideration, CG Docket Nos. 03-123 and 10-51 (filed March 16, 2017) ("Sorenson VTCSecure Waiver Reply Comments").

[32] *See* Sorenson VTCSecure Waiver Reply Comments at 5.

VRS providers explained in the proceeding below, DVC customer support services present unique challenges for deaf users.[33] Alternatively, DVC providers could choose to offer VRS as an option, but that would elevate them to an inappropriate gatekeeping role that carries with it security, reliability, and privacy risks.[34]

Although DVC customer service may be the right solution for a given consumer, the consumer must still have the option of utilizing VRS. Indeed, there are real advantages to VRS that some deaf consumers may prefer over a DVC.[35] Specifically with regard to customer service, callers using VRS are able to communicate with all personnel, including supervisors. Some issues may only be resolvable via certain people at the agency or organization, and VRS callers would be able to escalate the question to successive individuals, whereas DVC callers would be unable to do so.[36] With DVC, callers are restricted to speaking with the ASL-capable representative, and escalating to the appropriate individual could involve longer wait times or securing the assistance of a VRS interpreter anyway to be able to communicate with the correct person.[37]

More generally, deaf consumers might prefer VRS because the quality of interpretation is better. VRS interpreters are subject to federal requirements governing quality,[38] but ASL-

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33 Response of the VRS Providers to VTCSecure's Petition for Waiver and Request for Declaratory Ruling at 10-11, Docket Nos. 03-123 and 10-51 (filed Aug. 17, 2016) ("VRS Provider VTCSecure Waiver Comments").

34 *See* Sec. IV.B., *infra*.

35 *See* VRS Provider VTCSecure Waiver Comments at 10-11.

36 *See id.* at 10.

37 *See* Reply Comments of VTCSecure at 16, CG Docket Nos. 03-123 and 10-51, WC Docket No. 10-191 (filed Sept. 1, 2016).

38 *See* 47 C.F.R. § 64.604.

capable individuals handling DVC customer service calls are not. As such, it is entirely possible that a VRS customer would prefer to stay with a trusted VRS provider rather than rely on an untested service for his or her calling needs. Moreover, DVC providers may or may not have to maintain high levels of quality for call handlers as a result of competition between providers, the way VRS providers must.[39] And finally, callers who are deaf or hard of hearing may prefer VRS because of the voice-carryover services, as ASL-capable representatives in a DVC call may be deaf and unable to handle any amount of voice communication.

B. The Commission Must Address Security, Reliability, and Privacy Concerns Associated with Broadening Access to TRS Directory Before It Grants Such Access—Especially If DVC Providers Are Permitted a Gatekeeping Role.

If the Commission permits DVC providers to access the TRS Directory, it must ensure that security, reliability, and privacy are not compromised in the process. The Commission has already recognized that opening access to the TRS Directory could "jeopardize the privacy of Internet-based TRS users" and threaten the security of the system.[40] Accordingly, the Commission needs to establish criteria and obligations for these new entities, as well as guidance on how applicants seeking access to the database may establish the requisite qualifications.[41]

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39 *See Structure and Practices of the Video Relay Service Program; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Report and Order and Further Notice of Proposed Rulemaking, 28 FCC Rcd. 8618, 8689 ¶ 177 (2013) ("VRS providers compete for users primarily on the basis of quality of service, including the quality of their VRS [interpreters]; a user dissatisfied with the quality of a given provider's VRS [interpreters] can switch to another provider on a per call or permanent basis.").

40 *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; E911 Requirements for IP-Enabled Service Providers*, Report and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd. 11,591, 11,616 ¶ 66 (2008).

41 *See, e.g.*, VRS Provider VTCSecure Waiver Comments at 7 ("For example, the Commission needs to consider who will be qualified to provide these services, how the certification process will work, how new numbers will be added into the Numbering Directory, how to

Because of the sensitive information that may be obtained from the TRS Directory—such as how calls to a particular number are routed and where those calls are routed—a malicious entity could seriously damage the integrity of the system, threaten consumer privacy, and disrupt important consumer calls.

Equally important is how the Commission permits access. At least with regard to the VTCSecure *Waiver Order*,[42] as it stands currently VTCSecure is not limited to placing in the Numbering Directory only numbers that are uniquely assigned for purposes of DVC communication. As a result, VTCSecure can—and intends to—place the general customer service (or other voice telephone) numbers of its customers into the Directory, thus causing every VRS call placed to those numbers to be routed through VTCSecure rather than through VRS. This routing setup, which makes VTCSecure a de facto gatekeeper for all calls from VRS customers to key enterprises and government agencies, carries with it serious privacy and logistical concerns. Indeed, such a model would compromise privacy, because the DVC providers would have access to routing and usage information for every customer's call—more information than any VRS provider.

Moreover, in this DVC provider-as-a-gatekeeper model, the success of a customer service call from a deaf consumer—any customer service call—would depend solely on the reliability of the DVC provider's service. If the DVC provider was experiencing interruptions or other service quality issues, consumers would be unable to reach customer service

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ensure interoperability among non-VRS and VRS providers, how the privacy of users and the security of existing systems will be ensured, and what audit rights the Commission will have, among other things.").

[42] *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Structure and Practices of the Video Relay Service Program*, Order and Declaratory Ruling, 32 FCC Rcd. 775, 2017 WL 239103 (Cons. & Gov't Affs. & Wireline Comp. Burs. rel. Jan. 18, 2017) ("*Waiver Order*").

representatives by either DVC *or* VRS. At minimum, this presents an unjustified inconvenience—but more seriously, it could prevent callers from reaching agencies or organizations with very time-sensitive matters. For example, callers dial customer service for a host of serious problems including reporting outages to their utilities; pursuing pre-approval for an urgent procedure from a health insurer; resolving a problem with financial benefits from a government agency; or reporting work emergencies, such as injuries or fatalities on the job.[43] It would be unwise for the Commission to put DVC providers in the position of gatekeeping all deaf customer service calls, particularly as DVC providers are not subject to any reliability requirements the way that VRS providers are, and because the Commission has never done any comprehensive studies on the reliability risks of DVC services.

But even if the DVC service is entirely reliable, there are other considerations at issue. Requiring all callers to go through a DVC interface before deciding whether to proceed with DVC or VRS would lengthen the amount of time it takes to reach a customer service representative. It would also leave open the possibility that the DVC provider could influence which service the consumer chooses using the design of the interface or other mechanisms. Such influence could be accidental or intentional, but either way, VRS providers will have no easy remedy.

Further, any Commission action here should also take into account the logistical challenges of allowing additional entities access to the TRS Directory. As it stands, only the few VRS providers have access, and as a result, any problems or disputes between providers are

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[43] *See* Report a Fatality or Severe Injury, Occupational Safety and Health Administration, U.S. Department of Labor, https://www.osha.gov/report.html (last visited May 25, 2017) (indicating that employers are required to notify OSHA of certain work-related injuries and fatalities within twenty-four hours).

easily addressed, and the VRS providers are adept at cooperatively working through any issues with each other. With more entities having access to the database, disputes may be more complicated. Accordingly, the Commission must require new entities seeking access to provide sufficient contact information, including an appropriate representative for conflict resolution purposes. Indeed, if the Commission does allow other providers to access the database, the Commission should also adopt rules that would compel non-VRS providers to address any problems within a certain time limit and consider other mechanisms to ensure smooth dispute resolution.

C. The Commission Must Ensure That DVC and VRS Providers Are Subject to the Same Requirements and That DVC Providers Bear the Costs of Access.

If the Commission allows DVC providers to access the TRS Directory, it must ensure that DVC providers are subject to the same rules that govern VRS providers so that DVC providers do not benefit from an unfair advantage in the market. First, the Commission should require that DVC technology is fully interoperable with the technology that VRS providers offer. This will promote the Commission's goal of ensuring interoperability and benefit consumers who may want to use both types of services.[44] Moreover, as a practical matter, DVC providers should bear the costs of ensuring interoperability, as expenses from VRS providers would need to be reimbursed by an already strained TRS Fund—and VRS providers have already worked extensively on making sure that their customers may "make and receive calls through any VRS provider, and to choose a different default provider, without changing the VRS access

[44] *See Structure and Practices of the Video Relay Service Program; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Further Notice of Proposed Rulemaking, 31 FCC Rcd. 8777 (2016).

technology they use to place calls."[45] Putting the burden of interoperability on DVC providers will avoid undermining those efforts.

Second, any costs—pertaining to interoperability or otherwise—that are incurred in granting DVC providers access to the Directory should be placed on the DVC providers. The Commission has tentatively suggested that granting DVC providers access to the Directory would "reduce the TRS costs that would otherwise be borne by the TRS Fund" because DVC avoids costs involved with interpreting or unnecessary routing.[46] Sorenson believes that this is a premature conclusion, particularly in light of the costs associated with addressing the concerns that have been cited herein. That being said, TRS costs could be reduced if the Commission ensures that DVC-related costs are attributed to DVC providers, which would be fair, given that DVC providers would be receiving the benefit of access to the Directory. Indeed, to ensure that the burden does not increase on the TRS Fund, the Commission should confirm that any amendment to the rules would not impose additional obligations on VRS providers.

V. PER-CALL VALIDATION IS UNNECESSARY TO PREVENT VRS WASTE, FRAUD, OR ABUSE, BUT IN ANY EVENT SHOULD NOT BE REQUIRED BEFORE THE DATABASE ADMINISTRATORS AND PROVIDERS HAVE TIME TO ENSURE ALL SYSTEMS ARE FUNCTIONING PROPERLY.

Given the lack of waste, fraud, or abuse stemming from ineligible ASL-speakers placing or receiving VRS calls, per-call validation is a costly exercise for which the benefits do not exceed the costs.[47] However, if the Commission nonetheless continues to move ahead with per-call validation, the Commission should wait at least twelve months before requiring providers to

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[45] *See id.* ¶ 3.

[46] *FNPRM* ¶ 126.

[47] "Minute-pumping"—the type of fraud that has occurred in the past—is not deterred by per-call validation.

begin making routing decisions on individual calls, so that the databases can become more fully populated and technical issues can be identified. Once the Commission instructs providers to begin validating calls, the numbering administrator will not provide routing information for any call that cannot be validated. Before that happens, the Commission should allow the database administrators and providers time to ensure all systems are functioning properly.

Because the URD will be an immature technology when it goes live, there is a significant risk that undiscovered technical errors could prevent valid VRS calls from being routed. Once the call validation requirement takes effect, the Numbering Directory administrator will not provide routing information for any call that fails to satisfy certain conditions, including if there are certain discrepancies between the databases.[48] Errors in URD data or software errors in the databases could therefore prevent legitimate calls from being validated, and even cause catastrophic, system-wide failure if there were some data problem between the iTRS database and the URD. That would in turn keep registered VRS users from placing calls they are allowed to make, and prevent providers from receiving compensation for calls they should have been able to route. The Commission can minimize the risk of VRS calls being denied due to database errors by allowing at least twelve months for providers and database administrators to identify and address any errors that arise in actual use conditions.

In addition, if the Commission does require providers to validate calls by querying the Numbering Directory, it should consider the realities of how customer data propagates through to the various databases, because that reality differs from the understanding expressed in the *FNPRM*. The *FNPRM* assumes that "[t]he TRS-URD will continuously update the valid number

[48] *See* Beckmann Decl. ¶ 13.

list in the TRS Numbering Directory."[49] At least initially, however, there could be several hours' delay before data is fully propagated to the Numbering Directory. In the URD's first sixty days, Rolka Loube will only process updates twice a day, and even after the URD is fully running, updates will only be processed hourly.[50] The act of processing updates can itself take up to an hour.[51] Then, depending on how Rolka Loube transmits data to the numbering administrator, it could take up to an additional hour or longer for data to fully propagate to the Numbering Directory.[52]

Of equal importance, per-call validation could block VRS users from calls connecting them to critical services, such as medical instructions, benefits information, or financial information. Also, as part of Neustar's proposed number validation rules, Neustar reports that deaf individuals that may be porting between providers would potentially lose services if for some length of time the user's telephone number provider and the registered provider do not match. Thus, from the moment a new user registers for VRS, two or more hours may elapse before providers are able to validate that user by querying the URD or Numbering Directory, and callers will be unable to place VRS calls even though they are validly registered VRS users. This risk will be greatest in the short term, because it is likely that new users will be added to the URD at a high rate when it first begins running. Once the databases are fully populated with existing users, the rate of new users will likely decrease, reducing the number of users who are

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49 *FNPRM* ¶ 128 n.292.

50 *See* Beckmann Decl. ¶ 6.

51 *See id.*

52 *See id.* ¶ 7. If Rolka Loube transmits updates using Neustar's real-time option, they could propagate to the Numbering Directory within minutes; under the batch upload method, updates will only be processed hourly, and it could take Neustar up to twenty minutes to process long files, plus another five minutes for the data to fully propagate to the Numbering Directory. *See id.*

prevented from placing calls during the processing period. At a minimum, therefore, the Commission should not require providers to begin validating calls until the URD and Numbering Directory are populated with existing users and the rate of new users stabilizes.

VI. THE COMMISSION SHOULD PROHIBIT NON-SERVICE-RELATED INDUCEMENTS.

Sorenson supports the Commission's goal of eliminating providers' ability to entice customers away from their default providers by giving away free, non-VRS-related items.[53] However, the Commission must preserve providers' ability to provide to users without charge appropriate, service-related equipment—that which is "integral to the provision, continuation and enhancement of quality VRS services" to which VRS users are statutorily entitled.

As Sorenson explained in its recent comments on VRS rates, VRS equipment is an order of magnitude more expensive than comparable equipment needed for a high-quality phone call.[54] Whereas a cheap telephone costs as little as $10, and even a relatively advanced phone may only cost $60, the costs for basic VRS equipment start at $650 and can easily exceed $1000.[55] The Commission must not treat the provision of essential VRS equipment at no charge as an improper incentive, or else the cost of that equipment would necessarily fall to deaf customers—many of whom are disproportionately poor compared to hearing individuals.[56] And as Sorenson further explained, the only equipment it distributes—its purpose-built videophones that are tailored to the needs of a deaf user; routers; cables; and TV monitors with built-in speakers for

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53 *See FNPRM* ¶ 131.

54 *See* Comments of Sorenson Communications, LLC, Regarding Section IV.A-B and F of the Further Notice of Proposed Rulemaking at 15, CG Docket Nos. 03-123 and 10-51 (filed Apr. 24, 2017).

55 *See id.* at 15-16.

56 *See id.* at 13.

VCO, sufficient picture quality for VRS, and HDMI capability—is all necessary for the provision of quality VRS.

Finally, the Commission seeks comment on whether to model VRS inducement regulation on the regulations already in place for IP CTS providers.[57] While there is no reason to subject IP CTS and VRS providers to different obligations, Sorenson notes that the Commission has already long held that "providers may not offer consumers financial or other incentives, directly or indirectly, to make TRS calls,"[58] which is a nearly identical rule to the requirement that IP CTS providers "shall not offer or provide to any person or entity that registers to use IP CTS any form of direct or indirect incentives, financial or otherwise, to register for or use IP CTS."[59] The Commission should make clear that equipment actually used in the provision of VRS would not be subject to this limitation. And while the Commission has also stated that a VRS provider "cannot condition the ongoing use or possession of equipment, or the receipt of different or upgraded equipment, on the consumer continuing to use the provider as its default provider,"[60] that restriction is no longer necessary as all VRS providers offer either a hardware or software-based endpoint to their users. At a minimum, the Commission should allow providers to reclaim loaned equipment if the user has not placed any call—whether VRS or point-to-

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57 *See FNPRM* ¶ 131.

58 *Telecommunications Relay Services and Speech-to-Speech Services. for Individuals with Hearing and Speech* Disabilities, Report and Order and Declaratory Ruling, 22 FCC Rcd. 20,140, 20,173 ¶ 89 (2007).

59 47 C.F.R. § 64.604(c)(8)(i).

60 *Telecommunications Relay Services and Speech-to-Speech Services. for Individuals with Hearing and Speech Disabilities; E911 Requirements for IP-Enabled Service Providers*, Second Report and Order and Order on Reconsideration, 24 FCC Rcd. 791, 810 ¶ 38 (2008).

point—within twelve months, in parallel with the requirement to terminate a user's ten-digit number after the same period.[61]

VII. NONCOMPETE CLAUSES SERVE LEGITIMATE BUSINESS PURPOSES, AND THE COMMISSION SHOULD NOT RESTRICT THEM.

A. Noncompete Clauses Benefit Consumers by Encouraging Training and Investment.

The Commission should not restrict the use of noncompete clauses in VRS VI contracts. Noncompete clauses are commonly used in many industries to preserve companies' trade secrets and investments. These clauses serve the same role for Sorenson, which invests heavily in training its VRS VIs and inventing new products and technologies to best serve its customers. Sorenson would be discouraged from making equally substantial investments if it knew that its VRS VIs could take both their training and the company's confidential information to Sorenson's competitors at any time. In the long run, restricting otherwise lawful noncompete clauses will only harm VRS customers.[62]

Courts, commentators, and economists have long recognized that noncompete clauses serve legitimate business purposes like "preserving trade secrets and protecting investments in personnel."[63] A recent report by the United States Treasury Department reaffirms these points. The report recognizes that noncompete clauses offer the "important social benefit[ ]" of

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61 47 C.F.R. § 64.515(a)(3)(ii)(A).

62 Furthermore, Sorenson's noncompete clauses apply to all employees and are not specific to interpreters. *See* Reply Comments of Sorenson Communications, LLC, Regarding Section IV.A-B and F of the Further Notice of Proposed Rulemaking at 29, CG Docket Nos. 03-123 and 10-51 (filed May 4, 2017) ("Sorenson Reply Comments") (citing Declaration of Christopher Wakeland ¶ 11, attached as Exhibit 3 to Sorenson Reply Comments ("Wakeland Decl.")).

63 *Aydin Corp. v. Loral Corp.,* 718 F.2d 897, 900 (9th Cir. 1983).

protecting trade secrets.[64] The report also explained that noncompete clauses incentivize employers to pay for expensive training:

> Non-competes offer an alternative: firms get an assurance that workers are unlikely to leave for some period of time, allowing the firm to capture more of the increased productivity from costly training it provides, and workers receive more training than they otherwise would.[65]

Sorenson's noncompete clause is tailored to serve these purposes. During employment, it prohibits concurrent employment with another VRS provider, but not for community interpreting.[66] While the *FNPRM* does not appear to ask about clauses that apply during employment, Sorenson notes that it would be wholly inappropriate for the Commission to consider proscribing loyalty during employment. After an employee leaves Sorenson, the clause bars VRS VIs only from working for another VRS provider in the same state in which they provided services for Sorenson.[67] The clause's duration is only six months.[68] These narrow limitations discourage other providers from freeriding on Sorenson's training by luring away Sorenson's VRS interpreters. The clause also ensures that VRS VIs do not immediately carry confidential knowledge of business plans or technological innovations to other providers. This helps Sorenson retain the benefits from its extensive research and development and interpreter training. Without the protections offered by a noncompete clause, Sorenson would be less likely to benefit from these investments, and thus less likely to invest as much in the first place.

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64 Office of Economic Policy, U.S. Department of Treasury, *Non-compete Contracts: Economic Effects and Policy Implications* at 26 (Mar. 2016), *available at* https://www.treasury.gov/resource-center/economic-policy/Documents/UST%20Non-competes%20Report.pdf.

65 *Id.* at 8.

66 *See* Wakeland Decl. ¶ 11.

67 *See id.*

68 *See id.*

At the same time, Sorenson recognizes the potential for abuse in noncompete clauses. Sorenson agrees with the Commission that overly broad noncompete agreements—unlike the one Sorenson uses—can harm competition by restricting the labor pool for an industry, which results in customers receiving inferior service. Overly broad noncompete agreements also adversely affect employees, who may be forced to leave their industries if the agreement lasts too long. That is precisely why Sorenson's noncompete clause is no broader than necessary to serve its purposes. Indeed, Sorenson's clause is narrower than many noncompete clauses upheld by state courts as enforceable and found not contrary to public policy.[69] Sorenson's noncompete clause is also consistent with, and far shorter than, a recently enacted law in Utah, Sorenson's home state, which prohibits noncompete agreements from lasting over a year.[70]

Moreover, VRS interpreters typically work part time for a VRS provider while also performing community interpreting. Sorenson does not, at any time, prohibit its employees or former employees from engaging in community interpreting, and thus an interpreter during the noncompete period may be able to substitute community interpreting to make up for any interim loss of VRS interpreting hours.

Given its limited scope, Sorenson's noncompete clause has not deprived other providers of qualified VRS VIs to an extent disproportionate to the training benefits that Sorenson provides those same video interpreters. And there is no reasonable argument that noncompete clauses have affected the wages of VRS VIs. As Sorenson explained in its earlier comments in the

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[69] *See, e.g.*, *Inflight Newspapers, Inc. v. Magazines In-Flight, LLC*, 990 F. Supp. 119, 135 (E.D.N.Y. 1997) (upholding noncompete clause with "duration of two years and the geographic scope limiting the enforceability of the non-compete clause to seven states and the District of Columbia").

[70] UTAH CODE ANN. § 34-51-201 (applying only to contracts entered into after May 10, 2016).

proceeding, VRS wages are experiencing upward pressure because, among other things, interpreters are earning higher wages doing interpreting work in their communities than they are working for VRS providers, including Sorenson.[71] Upward wage pressure is not the result of post-employment agreements between Sorenson and its VRS VIs.

The Commission should not interfere with the ability of VRS providers like Sorenson to use reasonable, otherwise lawful noncompete agreements, which encourage providers to invest in improving their customers' experience.

B. The Commission Lacks Authority Under Section 225(d)(1)(A) to Restrict Noncompete Clauses.

Because *per se* barring or limiting noncompete clauses will harm consumers, the Commission also lacks the authority to restrict noncompete clauses. Section 225(d)(1)(A) does not give the Commission authority over employment agreements. That section allows the Commission to regulate some operational aspects of VRS to ensure functional equivalency for consumers. For example, in 2013, the Commission relied on the clause to adopt rules regarding slamming and consumer privacy because voice telephone users enjoyed those same protections. These regulations promoted functional equivalency and fell within the scope of § 225(d)(1)(A).

In contrast, *per se* restrictions on noncompete agreements would do nothing to advance functional equivalency. As explained above, noncompete agreements allow VRS providers to confidently invest in training their interpreters and improving their services. Limiting these agreements would only harm consumers. Tellingly, no other party has concretely identified how VRS consumers are harmed by noncompete clauses, or how that alleged harm outweighs the recognized pro-consumer benefits of noncompete clauses. Past comments and ex parte letters on

[71] *See* Sorenson Reply Comments at 27-28; Wakeland Decl. ¶ 6.

this topic have offered only bare assertions about consumer harm or vague anecdotes about a limited VRS interpreter labor pool, without any evidence backing up these claims. Absent proof that noncompete agreements undermine functional equivalency, the Commission lacks the authority to regulate such agreements under § 225(d)(1)(A).

C. States Are Capable of Regulating Noncompete Agreements, and the Commission Should Not Intrude on Their Authority.

Although the Commission cannot and should not regulate noncompete agreements, it should not worry that VRS providers will be able to impose burdensome noncompete clauses in the future. State courts have long passed judgment on the validity of such clauses under both general principles of common law and under state statutes. Although no one test applies in every state, most state courts apply a reasonableness test, invalidating noncompete clauses that are overly broad in duration, scope, or geography. After decades of experience, state courts are more than competent to decide whether a noncompete agreement is unfair or anticompetitive.

States have long been able to decide what kinds of contracts their citizens may enter, and any regulation issued by the Commission will interfere with states' ability set their own public policy while offering no benefits to VRS consumers. The Commission should continue to allow states to monitor and regulate noncompete agreements.

CONCLUSION

The Commission should (1) assess the extent to which VRS providers are delivering "functionally equivalent" service and also study the extent to which VRS is available "to the extent possible" to ASL users; (2) weigh the benefits of embarking on a challenging measurement program against the difficulties of doing so, and if it does so embark, have an independent third party conduct any performance measurements and make the results available to users; (3) clarify that VRS providers may terminate calls made to harass interpreters, but may

not otherwise monitor call content and terminate calls that appear to be unethical or illegal; (4) not adopt the login and PIN proposal for enterprise and public phones; (5) ensure that any decision regarding DVC providers access to the TRS Numbering Directory avoids unintended consequences, accounts for security and consumer protection issues, and does not result in regulatory disparity; (6) allow providers to validate calls by querying either the URD or the Numbering Directory only after the database administrators and providers have had time to ensure all systems are functioning properly; (7) prevent giveaways of non-VRS-related equipment as an inducement to use a provider's service, while preserving providers' ability to offer to VRS users appropriate, service-related equipment—that which is "integral to the provision, continuation and enhancement of quality VRS services" to which VRS users are statutorily entitled; and (8) not restrict the use of noncompete clauses in VRS VI contracts.

Respectfully submitted,

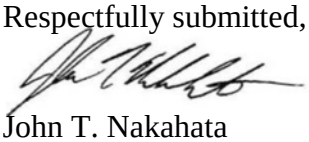

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EXHIBIT A

The Proper Interpretation of "In the Most Efficient Manner" in Title IV of the Americans with Disabilities Act

Samuel R. Bagenstos*

May 26, 2017

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I. Executive Summary

A. Summary of Arguments

This white paper addresses an important issue in the interpretation of Title IV of the Americans with Disabilities Act (ADA). Title IV requires that the Federal Communications Commission (the Commission) "ensure that interstate and intrastate telecommunications relay services are available, to the extent possible and in the most efficient manner, to hearing-impaired and speech-impaired individuals in the United States."[1] This white paper addresses the proper interpretation of the phrase "in the most efficient manner." A Notice of Inquiry issued on March 23, 2017, suggests that the Commission reads this language as a "cost-effective provision" that authorizes the Commission to choose *not* to ensure that functionally equivalent communications services are available to the extent possible to deaf Americans who need video relay services (VRS). This white paper demonstrates that such an interpretation is improper.

Title IV of the ADA defines "telecommunications relay services" as those services that provide disabled individuals "functionally equivalent" opportunities to communicate as are provided to nondisabled individuals.[2] By the plain text of the statute, the Commission's dominant consideration must be to ensure that individuals with speech and hearing impairments have equal access to telecommunication. By using the language "to the extent possible," Congress made clear that the Commission

[1] 47 U.S.C. § 225(b)(1).
[2] 47 U.S.C. § 225(a)(3).

may not rely on considerations of cost to deny relay services to individuals who need them for equal access.

To be sure, the Commission must ensure that the services are provided "in the most efficient manner." Accordingly, when there are two alternative means of providing relay services that are functionally equivalent to each other, the Commission may require that a user receive the less expensive of the two alternatives. And the Commission may adopt rules that are tailored to ensure that relay services are used only by those who in fact need them for equal access to communication.

But the Commission's March 23 Notice of Inquiry suggests a broader interpretation of the "most efficient manner" language—one that is inconsistent with the text and structure of the ADA. For one thing, the Notice describes the statutory requirement as one of providing services "in the most efficient and cost-effective manner"[3]—even though the term "cost-effective" does not appear in Title IV. Two paragraphs later, the Notice refers to Title IV as a "cost-effective provision."[4] Of especial concern, these passages appear in a discussion seeking information regarding "the potential cost-savings to the TRS Fund" that would result from using such alternatives as email in lieu of video relay services.[5]

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[3] *In the Matter of Structure and Practices of the Video Relay Service Program and Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket Nos. 10-51, 03-123 (Report and Order, Notice of Inquiry, Further Notice of Proposed Rulemaking, and Order, Mar. 23, 2017) at ¶ 61.
[4] *Id.* ¶ 63.
[5] *Id.* ¶ 64.

Under the plain text of Title IV, the Commission's dominant aim must be to ensure that functionally equivalent communications services are available to the extent possible to deaf and hard-of-hearing individuals. It is when there are multiple ways of achieving functional equivalence that the Commission may choose the less expensive means. It would therefore be error for the Commission to conclude, for example, that it could replace VRS with e-mail on the theory that would be more cost-effective to do so. Email plainly does not provide American Sign Language speakers a means of communication that is functionally equivalent to the telephone.

As it moves to setting rates, the Commission should not rely on the erroneous interpretation of Title IV as a "cost-effective provision." In particular, it would violate the statute for the Commission to set rates so low that providers are unable to offer functionally equivalent service—even if, in the Commission's view, it would be more cost-effective to do so. Thus, for example, it would violate the ADA if the Commission decided to set VRS rates so that the average wait time to reach a video interpreter is two minutes, even though hearing persons obtain a dial tone almost immediately.

Title IV of the ADA is a very different sort of statutory provision than others that the Commission administers. Those other provisions, such as the Communications Act's universal-service provision, are classic public-interest regulatory delegations, which empower the Commission to balance a broad array of factors in making its decisions. The universal-service provision, notably, allows the Commission to consider consumer costs and adopt rules that limit use of the programs it covers to serve fiscal and administrative interests. Title IV, like other civil rights

statutes, protects individuals. Like other provisions of the ADA, it requires accommodations that are necessary to provide disabled persons equal access to opportunities. And, unlike the universal-service provision, it does not permit the Commission to deny equal access to eligible individuals based on considerations of cost or administrative convenience.

This white paper proceeds as follows. Section II sets forth the basic structure and requirements of the ADA, of which Title IV is a component part. Section III discusses the ADA's requirements of accessible communication and gives particular attention to the obligations imposed by Title IV. Section IV discusses the role of cost-effectiveness in the statutory structure.

B. Qualifications

I am the Frank G. Millard Professor of Law at the University of Michigan Law School. I teach, study, and write about civil rights law, with a particular focus on disability rights law. I have taught at Michigan Law since 2011. Before joining the Michigan faculty, I taught at the law schools at Washington University, UCLA, and Harvard.

From 2009-2011, I served as Deputy Assistant Attorney General, then Principal Deputy Assistant Attorney General, for Civil Rights at the United States Department of Justice. In those positions, my responsibilities included supervising all of the Department's disability rights enforcement, through the Disability Rights, Special Litigation, and Appellate Sections of the Civil Rights Division. A large

portion of the Department's disability rights enforcement docket involves issues of effective communication for people with hearing impairments.

In addition to supervising litigation, my responsibilities at the Department of Justice included leadership of the Civil Rights Division's regulatory and policy efforts regarding disability rights. Among other things, I supervised the promulgation of the Department's 2010 Americans with Disabilities Act regulations.[6] Those regulations were the first comprehensive update to the regulations implementing Titles II and III of the ADA in nearly 20 years. The 2010 regulations included extensive new provisions regarding accessible communication, including accessible telecommunications services.[7] At the same time as the Department issued its new ADA regulations, it also, under my supervision, issued an Advance Notice of Proposed Rulemaking (ANPRM) regarding the accessibility of next-generation 9-1-1 services.[8] In working on the 2010 regulations and the ANPRM on next-generation 9-1-1, I spent substantial time examining issues of disability access in telecommunications services.

Even aside from my time in the leadership of the Civil Rights Division, I have extensive experience with the Americans with Disabilities Act. I have published a casebook on disability rights law (currently in its second edition, published by

[6] *Nondiscrimination on the Basis of Disability in State and Local Government Services*, 75 Fed. Reg. 56,164 (Sept. 15, 2010); *Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities*, 75 Fed. Reg. 56,236 (Sept. 15, 2010).
[7] See 28 C.F.R. §§ 35.104, 35.160, 35.161, 36.303.
[8] *Nondiscrimination on the Basis of Disability in State and Local Government Services; Accessibility of Next Generation 9-1-1*, 75 Fed. Reg. 43,446 (July 26, 2010).

Foundation Press),[9] as well as an academic monograph on the law and the American disability rights movement (published by the Yale University Press),[10] and over a dozen law review articles on disability rights topics. Since my admission to the bar in 1994, I have litigated disability rights cases at every level of the federal court system, including arguing three ADA cases in the Supreme Court.[11] I have also testified before Congress to address disability rights issues on three occasions.[12]

In the early years of my career, before joining the academy, I clerked for Judge Stephen Reinhardt of the United States Court of Appeals for the Ninth Circuit, worked for three years as an attorney at the Civil Rights Division of the United States Department of Justice, and then clerked for Justice Ruth Bader Ginsburg of the Supreme Court of the United States. I am a 1990 graduate of the University of North Carolina, and a 1993 graduate of the Harvard Law School.

II. The Structure and Basic Requirements of the ADA

Congress enacted the ADA "to provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities" and "to provide clear, strong, consistent, enforceable standards addressing

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[9] SAMUEL R. BAGENSTOS, DISABILITY RIGHTS LAW: CASES AND MATERIALS (2d ed. 2014).
[10] SAMUEL R. BAGENSTOS, LAW AND THE CONTRADICTIONS OF THE DISABILITY RIGHTS MOVEMENT (2009).
[11] Fry v. Napoleon Community Schools, 137 S. Ct. 743 (2017); United States v. Georgia, 546 U.S. 151 (2006); Chevron U.S.A. Inc. v. Echazabal, 536 U.S. 73 (2002).
[12] *Achieving the Promise of the Americans with Disabilities Act in the Digital Age – Current Issues, Challenges, and Opportunities: Hearing Before the Subcomm. on the Constitution, Civil Rights, and Civil Liberties, House Comm. on the Judiciary* (April 22, 2010); *Human Rights at Home: Mental Illness in U.S. Prisons and Jails: Hearing Before the Subcomm. on Human Rights and the Law, Senate Comm. on the Judiciary* (September 15, 2009); *Determining the Proper Scope of Coverage for the Americans with Disabilities Act: Hearing Before the Senate Comm. on Health, Education, Labor, and Pensions* (July 15, 2008).

discrimination against individuals with disabilities."[13] Congress acted against a stark historical backdrop. For decades, large numbers of disabled Americans had been excluded from every key institution of our Nation's civic, economic, and political life.

Sometimes this exclusion resulted from overt denials of participation. In many cases, these denials reflected overbroad stereotypes about the limiting effects of disability. For example, prior to the enactment of the Education for All Handicapped Children Act in 1975, Congress found that one million children with disabilities "were excluded entirely from the public school system,"[14] largely because their schools deemed them ineducable. Congress found that these determinations reflected unduly low expectations for disabled children, and it required schools to educate all children with disabilities.[15] Education was far from the only context in which overbroad stereotypes limited the opportunities afforded to disabled Americans. Indeed, those stereotypes were pervasive in the public and private sectors.[16]

Low expectations were not the only reasons businesses, schools, and other government programs excluded people with disabilities. Sometimes, the exclusions reflected simple prejudice.[17] Other times, the exclusions reflected paternalism—a fear that participation in a particular job or other activity would be too risky for a disabled person, and that the disabled person could not be trusted to make the

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[13] 42 U.S.C. § 12101(b)(1), (2).
[14] Board of Educ. v. Rowley, 458 U.S. 176, 189 (1982) (internal quotation marks omitted).
[15] See 20 U.S.C. §§ 1400, 1412(a)(1).
[16] See Samuel R. Bagenstos, *Subordination, Stigma, and "Disability,"* 86 VA. L. REV. 397, 423-425 (2000) (pointing to the evidence before Congress on this question).
[17] See *id.* at 422-423 (discussing evidence before Congress).

decision for himself or herself. One of the House Reports on the ADA described paternalism as "perhaps the most pervasive form of discrimination for people with disabilities."[18] One of Congress's aims in enacting the ADA was to prohibit the "refusal[] to give an even break to classes of disabled people, while claiming to act for their own good in reliance on untested and pretextual stereotypes."[19]

But overt exclusions—whether based on stereotypes, prejudice, or paternalism—were not the only or even the most practically important means by which people with disabilities were denied opportunities. On a day-to-day basis, the most important limitation on those opportunities resulted from the failure to design our physical and social environment in a way that took account of disabled people. And that, in turn, resulted from the failure, on the part of the broad society, to think of people with disabilities as among the "normal" users who could be expected to take advantage of those opportunities.[20]

The point is easiest to see when considering architectural barriers. When architects have designed buildings, they have historically had in mind an image of the prototypical user of those buildings—a prototypical user who moves about by walking, rather than using a wheelchair. As a result, they have designed those buildings with stairs instead of ramps, with light switches that are too high for wheelchair users to reach, with restrooms that wheelchair users cannot enter, and with doorways that are too narrow to fit a wheelchair. Those sorts of barriers exclude

[18] H.R. Rep. No. 101-485, pt. 2, at 72, 74 (1990).
[19] Chevron USA Inc. v. Echazabal, 536 U.S. 73, 85 (2002).
[20] See generally Bagenstos, *supra* note 16, at 439-444.

disabled people just as surely as does a "no wheelchair users" sign. And they would not exist if architects had thought of wheelchair users as among the prototypical patrons for whom their buildings were designed.

The failure to think of people with disabilities as "normal" participants extends beyond architectural barriers. It extends as well to the organization of job tasks. And it also extends, as this white paper explains in more detail below, to the use of particular means of communication.

When Congress enacted the ADA, it responded to all of these sorts of limitations on the opportunities of disabled individuals. Congress expressly found that "individuals with disabilities continually encounter various forms of discrimination, including outright intentional exclusion, the discriminatory effects of architectural, transportation, and communication barriers, overprotective rules and policies, failure to make modifications to existing facilities and practices, exclusionary qualification standards and criteria, segregation, and relegation to lesser services, programs, activities, benefits, jobs, or other opportunities."[21] Congress's response was "clear and comprehensive,"[22] in two key respects: (1) the statute's broad coverage of every aspect of civic and economic life; and (2) the statute's broad understanding of discrimination.

The ADA sets forth its broad coverage in four substantive titles. Title I prohibits disability discrimination in employment—both in the private sector and in

[21] 42 U.S.C. § 12101(a)(5).
[22] 42 U.S.C. § 12101(b)(1).

state and local government.[23] Title II prohibits disability discrimination in any service, program, or activity of a state or local government—including public education, public transit, and anything else a state or local government does.[24] Title III prohibits disability discrimination in privately-owned places of public accommodation, as well as in privately-operated transportation services.[25] Title IV extends these principles to intrastate and interstate telecommunications services.[26]

The ADA's broad understanding of discrimination appears in each of its titles. The statute goes beyond simply prohibiting intentional disparate treatment. Recognizing that the failure to consider people with disabilities as "normal" employees, users, and patrons can exclude disabled people just as surely as can intentional discrimination, the ADA requires the entities it regulates to change their existing rules, practices, and physical structures to ensure equal opportunity.

It is common to speak of this requirement as a demand for "reasonable accommodation," though the statute's various titles use several different verbal constructions to capture the concept. Some provisions of the statute frame the requirement as a broad general rule. For example, Title I requires an employer to make "reasonable accommodations" for an employee with a disability, unless the employer can show that providing the accommodation will impose an "undue

[23] See 42 U.S.C. § 12111 *et seq*.
[24] See 42 U.S.C. § 12131 *et seq*.; see also Pennsylvania Dept. of Corrections v. Yeskey, 524 U.S. 206 (1998) (affirming the broad coverage of ADA Title II).
[25] See 42 U.S.C. § 12181 *et seq*.; see also PGA Tour, Inc. v. Martin, 532 U.S. 661 (2001) (affirming the broad coverage of ADA Title III).
[26] See 47 U.S.C. § 225.

hardship" on it.[27] Title II requires a government entity to make "reasonable modifications to rules, policies, or practices" to enable individuals with disabilities to fully participate in the entity's services, programs, and activities, unless it can show that those modifications would fundamentally alter the nature of those services, programs, or activities.[28] Title III requires a private business to make "reasonable modifications in policies, practices, or procedures, when such modifications are necessary to afford such goods, services, facilities, privileges, advantages, or accommodations to individuals with disabilities, unless the entity can demonstrate that making such modifications would fundamentally alter the nature of such goods, services, facilities, privileges, advantages, or accommodations."[29]

Other provisions of the statute focus on particular types of accommodations, or on particular functions or areas of the economy. These provisions frame the accommodation requirement in more specific terms. Thus, Title I lists a series of changes that can constitute reasonable accommodations in the workplace. These include: "making existing facilities used by employees readily accessible to and usable by individuals with disabilities," "job restructuring, part-time or modified work schedules, reassignment to a vacant position, acquisition or modification of equipment or devices, appropriate adjustment or modifications of examinations, training materials or policies, the provision of qualified readers or interpreters, and other similar accommodations."[30] And both Title II (which covers government-

[27] 42 U.S.C. § 12112(b)(5).
[28] 42 U.S.C. § 12131(2); 28 C.F.R. § 35.130(b)(7).
[29] 42 U.S.C. § 12182(b)(2)(A)(ii).
[30] 42 U.S.C. § 12111(9).

operated transit services) and Title III (which covers privately-operated transportation that serves the public) contain specific and detailed provisions that instantiate the accommodation requirement in the transportation context.[31]

Two types of barriers to disabled people get special attention in the ADA's reasonable accommodation provisions. Architectural barriers are the first type. In general, the statute requires the removal of barriers to the physical access of people with disabilities to workplaces, stores, government facilities, and so forth, where doing so will avoid denying opportunities, and where the removal can be accomplished at an acceptable cost. But the statute fleshes out that basic requirement with a series of specific rules.

In particular, the law draws an old/new distinction: Recognizing that it is generally inexpensive to include accessible features in new facilities, the statute requires buildings constructed or renovated after its enactment to be "readily accessible to and usable by individuals with disabilities."[32] To be "readily accessible," facilities must comply with the extensive and detailed architectural requirements set forth in the 2010 ADA Standards for Accessible Design.[33]

But facilities that were built prior to the ADA, and have not been renovated since, face a more lenient requirement. Pre-ADA private facilities must remove physical barriers where doing so is "readily achievable"—and if removal is not readily achievable, the business that operates the facility must provide disabled users

[31] See 42 U.S.C. §§ 12141 to 12150, 12161 to 12165, 12184.
[32] 42 U.S.C. § 12183(a) (requirement for private facilities); see also 28 C.F.R. § 35.151 (same requirement for state and local government facilities).
[33] https://www.ada.gov/regs2010/2010ADAStandards/2010ADAstandards.htm.

individualized accommodations to enable those users to access the facilities goods and services.[34] Government programs operating in pre-ADA facilities must ensure that the program, "when viewed in its entirety, is readily accessible to and usable by individuals with disabilities."[35] The "program accessibility" requirement does not necessarily demand that the government agency make each of its facilities accessible to individuals with disabilities, but it does require accommodations to enable those individuals to participate fully and equally in government programs, at least absent a case-by-case showing of fundamental alteration or "undue financial and administrative burdens." 28 C.F.R. § 35.150.

The second type of barrier that gets special attention in the ADA's accommodation provisions consists of barriers to effective communication. Title IV of the ADA is one of several provisions that target communications barriers. The next section of this white paper discusses those provisions in depth.

Although some of the ADA's reasonable-accommodation provisions are framed in general terms, and others offer detailed rules to govern particular contexts, all of them share a similar structure. Where existing physical facilities, job requirements, or manners of providing services deny people with disabilities equal opportunities to participate in the enterprise at issue alongside nondisabled individuals, the entity covered by the ADA has a duty to make an accommodation. That obligation is limited only to the extent that the covered entity can show, on a case-by-case basis, that the necessary accommodation is too costly or burdensome under the standards set forth

[34] 42 U.S.C. § 12182(b)(2)(A)(iv), (v).
[35] 28 C.F.R. § 35.150(a).

in the relevant accommodation provision. And because the ADA "seeks to diminish or to eliminate the stereotypical thought processes, the thoughtless actions, and the hostile reactions that far too often bar those with disabilities from participating fully in the Nation's life,"[36] such a showing demands real evidence, rather than mere assumptions or projections, of hardship.

III. The ADA, Communications Barriers, and Title IV

The ADA's extensive provisions regarding communications barriers follow the same structure as do the statute's other reasonable-accommodation requirements. Congress specifically identified "the discriminatory effects of * * * communications barriers" as among the "various forms of discrimination" that "individuals with disabilities continually encounter."[37] Both Title II (in its implementing regulations) and Title III (in the statute itself) contain provisions that specifically apply the accommodation requirement to communications barriers. Title II requires state and local governments to provide appropriate "auxiliary aids" to ensure that its communications with individuals with disabilities are as effective as its communications with others.[38] Title III requires a private place of public accommodation to provide auxiliary aids unless the business can show that doing so "would fundamentally alter the nature of the good, service, facility, privilege, advantage, or accommodation being offered or would result in an undue burden."[39]

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[36] US Airways, Inc. v. Barnett, 535 U.S. 391, 401 (2002).
[37] 42 U.S.C. § 12101(a)(5).
[38] 28 C.F.R. § 35.160. See also *id.* § 35.104 (defining "auxiliary aids" to include a variety of communications aids, including, inter alia, "captioned telephones").
[39] 42 U.S.C. § 12182(b)(2)(A)(iii).

These provisions recognize that a person with a disability might not access the opportunity at issue in precisely the same way as do people without disabilities. A nondisabled patient might speak vocally to an intake nurse at a hospital, for example, while a patient with a hearing impairment might use a sign language interpreter. But the hospital must provide the interpreter so that the patient with the hearing impairment has an equal opportunity to perform the same function as the nondisabled patient—the function of communicating with the intake nurse.

Title IV, which applies exclusively to telecommunications, is framed in the same way. Just as the other titles of the ADA require regulated entities to make accommodations to their prior practices in order to ensure that people with disabilities can participate in jobs, government programs, or public accommodations, Title IV requires a change to the pre-existing means by which telephone service was delivered to ensure that disabled people have an equal opportunity to access it. In particular, the statute requires the Commission to "ensure," "to the extent possible and in the most efficient manner," that relay services are available to individuals with hearing or speech impairments.[40] Just as the other titles of the ADA require regulated entities to give disabled people an equal opportunity to perform the same functions as nondisabled individuals, Title IV provides that relay services must enable individuals with hearing or speech impairments to "engage in communication by wire or radio * * * in a manner that is functionally equivalent to the ability of a hearing individual who does not have a speech disability" to do so.[41] Importantly, the

[40] 47 U.S.C. § 225(b)(1).
[41] 47 U.S.C. § 225(a)(3).

"relay services" required by ADA Title IV are not limited to one particular technological method—they extend to any method that provides disabled individuals the "functionally equivalent" opportunity to communicate.

Examination of the legislative history of the ADA makes clear that Congress designed Title IV as an essential complement to the statute's other three substantive titles—one that was necessary to ensure the realization of the equal opportunity goals of those titles. The Senate Report, for example, stated that "[g]iven the pervasiveness of the telephone for both commercial and personal matters, the inability to utilize the telephone system fully has enormous impact on an individual's ability to integrate effectively in today's society."[42] The Report concluded that Title IV's requirement of functionally equivalent opportunity "takes a major step towards enabling individuals with hearing and speech impairments to achieve the level of independence in employment, public accommodations and public services sought by other sections of the Americans with Disabilities Act."[43]

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[42] S. Rep. No. 101-116 at 76 (1989).

[43] *Id.* at 77. See also *Americans with Disabilities Act of 1989: Hearings Before the Senate Comm. on Labor & Human Resources*, 101st Cong., 1st Sess. 15 (1989) (statement of I. King Jordan) ("By requiring nationwide telephone relay service for everyone, [Title IV] will help deaf people achieve a level of independence in employment and public accommodations that is sought by other parts of the ADA."); *Americans with Disabilities Act of 1989: Hearings Before the House Comm. on the Judiciary*, 101st Cong., 1st Sess. 122 (Aug. 3, 1989) (statement of Attorney General Thornburgh) ("Establishment of a telecommunications relay service is clearly a vital step toward full integration of deaf persons into the mainstream."); *Americans with Disabilities Act: Telecommunications Relay Services, Hearing Before the Subcomm. on Telecom. & Finance of the House Comm. on Energy and Commerce*, 101st Cong., 1st Sess. 23 (Sept. 27, 1989) (statement of Karen Peltz Strauss) ("Other sections of the ADA will not mean very much for deaf people if they do not have equal access to the telephone.").

Just as the ADA's other accommodation requirements aim to provide equal access to the opportunities provided by covered entities,[44] Congress made clear that the goal of Title IV's requirement of functionally equivalent service is to provide disabled people equal access to the telephone system. The Report of the House Energy and Commerce Committee explained that Title IV would "ensure that the full benefits of the telephone network are extended and shared equally by all our citizens."[45] Representative Hoyer, the principal sponsor of the ADA in the House, stated: "Deaf and hard-of-hearing individuals have waited all too long to enjoy the basic telephone service that has come to be so fundamental to our lives. Title IV of this act will finally enable these individuals to enjoy equal access to this very essential part of American life."[46]

A key first step to achieving the goal of equal access was to require that telecommunications relay services be available nationwide. At the time Congress adopted the ADA, those services still did not reach many parts of the United States.

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[44] See *US Airways*, 535 U.S. at 397 (explaining that Congress recognized that accommodations "will sometimes prove necessary to achieve the Act's basic equal opportunity goal," and that the statute therefore requires accommodations "that are needed for those with disabilities to obtain the *same* workplace opportunities that those without disabilities automatically enjoy").

[45] H.R. Rep. No. 101-485, Pt. 4, at 6 (1990).

[46] 136 Cong. Rec. E1920 (June 13, 1990); see also *Americans with Disabilities Act: Telecommunications Relay Services, Hearing Before the Subcomm. on Telecom. & Finance of the House Comm. on Energy and Commerce*, 101st Cong., 1st Sess. 2 (Sept. 27, 1989) (statement of Rep. Markey) ("This bill will guarantee communications for impaired Americans and for those people with speech or hearing disabilities, equal access to the Nation's telecommunications networks."); 136 Cong. Rec. H2431 (May 17, 1990) (statement of Rep. Gunderson) ("[T]itle IV of the ADA will finally offer deaf and hard of hearing people equal access to the telephone network—access which they have been denied for so long."); *id.* at H2434 (statement of Rep. Whittaker) ("[T]he telecommunications title of the Disabilities Act will achieve the goal shared by every Member of the House: to make telephone services equally available to all, including our deaf and hearing-impaired citizens.").

Accordingly, Congress required that the Commission "ensure" that telecommunications relay services were available, "to the extent possible and in the most efficient manner," throughout the country.[47] And it imposed on each common carrier a requirement to provide those services.[48]

But Congress did not stop by requiring that relay services be available nationwide. Congress heard testimony that, in states where relay services existed, those services often imposed usage limits that aimed to control costs or promote administrative convenience. Karen Peltz Strauss, then at the National Center for Law and Deafness, offered the following examples of rules that denied deaf people "equal access to the telephone":

> For example, the relay program in Arkansas limits users to a period of 15 minutes per call, and disallows personal telephone calls. In Kansas, calls are only accepted for relaying Monday through Friday, from 8 a.m. to 5 p.m., and are not accepted at all on State holidays.
>
> Massachusetts places a 10 minute limit on personal calls, and a 20 minute limit on business calls; and New Hampshire limits the number of calls that may be relayed by any one person to five per day, with a limit of 15 minutes per call.[49]

Limitations like these denied equal access to telephone users with speech and hearing disabilities, because nondisabled users faced no equivalent limit on the number or types of calls they could place or receive, the duration of those calls, or the times of day they could place or receive them.

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[47] 47 U.S.C. § 225(b)(1).
[48] 47 U.S.C. § 225(c).
[49] *Americans with Disabilities Act: Telecommunications Relay Services, Hearing Before the Subcomm. on Telecommunications & Finance of the House Comm. on Energy and Commerce*, 101st Cong., 1st Sess. 23 (Sept. 27, 1989) (statement of Karen Peltz Strauss).

Congress responded by prohibiting such limits. Congress did so through its general requirement that relay services provide access that is "functionally equivalent" to the access nondisabled telephone users receive.[50] Congress also directed that the Commission's regulations governing relay services specifically require those services to "operate every day for 24 hours per day"—and specifically prohibit those services from "refusing calls or limiting the length of calls."[51]

The legislative history makes clear that Congress determined that *ex ante* limitations imposed on relay services for reasons of cost and administrative convenience were inconsistent with Title IV's functional-equivalence requirement and its equal-access goal. The Report of the House Energy and Commerce Committee noted that Title IV would bar relay services from "limit[ing] the length of calls to users of the telecommunications relay services."[52] Representative Hoyer underscored the point. He explained that Title IV would "finally help end discrimination against deaf and hard of hearing individuals in our Nation's telecommunications network," would "require[e] nationwide relay services to be available for all local and long distance calls 24 hours a day, 7 days a week," and would require "that relayed calls should not receive busy signals or delays that are any greater than those currently experienced by voice telephone users"—all of which was consistent with the

[50] 47 U.S.C. § 225(a)(3).
[51] 47 U.S.C. § 225(d)(1)(C), (E).
[52] H.R. Rep. No. 101-485, Pt. 4, at 44.

requirement that relay services "must offer telephone service that is functionally equivalent to telephone service enjoyed by hearing individuals."[53]

IV. Title IV and the Role of Cost-Effectiveness

As the foregoing discussion reflects, the principal requirement of Title IV is that TRS—defined as services that enable disabled persons to communicate "in a manner that is functionally equivalent to the ability of" a nondisabled individual to use the telephone—be available "to the extent possible."[54] It is only in choosing among different means of delivering functionally equivalent services that the Commission may chose the one that provides those services "in the most efficient manner."[55] Title IV is therefore not a "cost-effective provision." It is a functional equivalence provision—one that, like the other provisions of the ADA, aims to promote equal opportunity for people with disabilities. By the statute's plain text, the Commission's dominant consideration must be to ensure that individuals with speech and hearing impairments have equal access to telecommunication. By using the language "to the extent possible," Congress made clear that the Commission may not rely on considerations of cost to deny relay services to individuals who need them for equal access.

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[53] 136 Cong. Rec. E1920 (June 13, 1990) (Rep. Hoyer); see also 136 Cong. Rec. H2635 (May 22, 1990) (Rep. Bonior) ("The relay systems that exist in a few States fall short of meeting the basic telephone needs of individuals with hearing and speech impairments. These systems are often underfunded and understaffed. They impose restrictions on the number, length, and types of calls that can be relayed in their States. Title IV requires relay services to be available 24 hours a day, 7 days a week, without restrictions on the type, length, or number of calls made by any relay service. The service provided must be functionally equivalent to that available to individuals without hearing impairments.").

[54] 47 U.S.C. § 225(a)(3), (b)(1).

[55] 47 U.S.C. § 225(b)(1).

To the extent that the March 23 Notice of Inquiry suggests that the Commission could force individuals with hearing impairments to use email simply because it was cheaper than video relay services, then, the Notice disregards the statute. For a deaf individual who speaks sign language, VRS provides communication that is functionally equivalent to the telephone. It enables both parties to react spontaneously to each other and in real time. Email, which is an asynchronous form of communication—one that does not use the same grammar and syntax as American Sign Language—is not at all the same. It is therefore not functionally equivalent to the telephone. The Commission may not favor its use based on a conclusion that it is more cost-effective than video relay services.

Similarly, the Commission would violate Title IV if it set a reimbursement rate that was too low to enable relay providers to offer service that was functionally equivalent to the telephone. People without disabilities can make phone calls to any person, any time, without rationing. To give people with speech and hearing impairments "the ability * * * to engage in communication * * * in a manner that is functionally equivalent to the ability of a hearing individual who does not have a speech disability,"[56] requires giving them the same access to communication. If rates were set so low that the average wait time for a video interpreter was two minutes, when nondisabled telephone users receive a dial tone immediately, that would violate the statute.

[56] 47 U.S.C. § 225(a)(3).

Congress was well aware that limitations on the use of relay services would deny equal access to disabled users. As the legislative history discussed in the previous section shows, many of the relay systems that existed at the time of the ADA's enactment imposed caps and other usage limitations for fiscal and administrative reasons. Congress heard testimony detailing those limits and concluding that they denied "equal access to the telephone."[57] Congress responded by barring relay services from imposing them. The legislative history makes clear that Congress did so precisely because the ADA's drafters believed that *ex ante* limitations denied disabled people telephone service that was functionally equivalent to the service nondisabled people enjoyed.[58]

A comparison with other statutes administered by the Commission underscores the impermissibility of limiting functionally equivalent relay services due to cost under Title IV.[59] Thus, the universal-service provision of the Communications Act broadly empowers the Commission to consider such "principles as the Joint Board and the Commission determine are necessary and appropriate for the protection of the public interest, convenience, and necessity and are consistent with this chapter." 47 U.S.C. § 254(b)(7). That provision is a classic delegation of authority to an administrative agency to balance a wide array of public-interest

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[57] *Americans with Disabilities Act: Telecommunications Relay Services, Hearing Before the Subcomm. on Telecommunications & Finance of the House Comm. on Energy and Commerce*, 101st Cong., 1st Sess. 23 (Sept. 27, 1989) (statement of Karen Peltz Strauss).

[58] See Part III, *supra*.

[59] Cf. Whitman v. American Trucking Ass'ns, 531 U.S. 457, 466-468 (2001) (where *other* provisions of the Clean Air Act expressly authorized the Environmental Protection Agency to consider costs in setting standards, Court refused to find an implicit "authorization to consider costs" under a Clean Air Act provision that did not mention costs).

factors in setting policy. It plainly authorizes the Commission to take account of consumer costs and set caps on universal service requirements.

But Title IV's relay service provision is very different. That provision stems not from the Communications Act but from the Americans with Disabilities Act. It is not a classic regulatory public-interest delegation but a civil rights law. It provides a means for people with hearing and speech impairments to have equal access to the same opportunities to communicate over the telephone that nondisabled people have. And Congress found that Title IV's guarantee of telecommunications access is essential to ensuring that disabled people can enjoy the equal access to jobs, schooling, and other government programs and educational opportunities that the other three substantive titles of the ADA seek to guarantee.[60] Title IV's requirements are thus closely intertwined with those of the rest of the ADA.

The ADA, like other civil rights laws, guarantees rights to individuals. If one person with a disability is denied a reasonable accommodation, it is no answer that *other* disabled people have received such accommodations. As the review of the ADA's reasonable-accommodation provisions in Part II above shows, even when the statute does permit covered entities to deny an accommodation based on cost, they may do so only based on a case-specific determination that a particular accommodation requested by a particular person is too costly. And when the cost makes a particular accommodation prohibitive—as it may, for example, when an individual with a disability seeks removal of architectural barriers in old buildings—the entity covered

[60] See Part III, *supra*.

by the statute generally has an obligation to pursue alternative reasonable accommodations that will provide the disabled individual equivalent opportunities.

Elevating cost-effectiveness above functional equivalence would be flatly inconsistent with this statutory structure. It would deprive individuals of accommodations—in the form of relay services—that they would otherwise need for equal access to telecommunications. Nor would it provide any other accommodation that offers equal access to the individuals who are denied relay services.

Indeed, the Commission itself has previously recognized that procedures that create incentives to deny relay services to eligible individuals are inconsistent with Title IV's mandate. That is why the Commission adopted a shared-funding mechanism for the TRS Fund. A self-funding mechanism, the Commission concluded, would impermissibly "provide incentives for carriers to handle fewer relay calls, to degrade relay calling quality, to migrate relay customers to other carriers, and to restrict relay to only their presubscribed customers."[61] The same principle applies to eligibility determinations. Just as Title IV bars the Commission from adopting rules that directly deny relay services to individuals whose disabilities make those services necessary for equal access, so too does the statute prohibit the Commission from achieving that end by giving third parties an incentive to deny coverage to those individuals.

[61] In the Matter of Telecommunications Servs. for Individuals with Hearing & Speech Disabilities, & the Americans with Disabilities Act of 1990, 8 F.C.C. Rcd. 1802 ¶ 21 (1993).

EXHIBIT B

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matters of	)	
	)	
Telecommunications Relay Services	)	CG Docket No. 03-123
and Speech-to-Speech Services for	)	
Individuals with Hearing and	)	
Speech Disabilities	)	
	)	
Structure and Practices of the	)	CG Docket No. 10-51
Video Relay Service Program	)	

SORENSON'S PETITION FOR A DECLARATORY RULING OR ALTERNATIVELY A RULEMAKING REGARDING CALL HANDLING OBLIGATIONS

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November 8, 2016

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TABLE OF CONTENTS

INTRODUCTION AND SUMMARY

The Commission's rules require Video Relay Service ("VRS") providers to handle all calls regardless of content and to maintain the confidentiality of call content.[1] Recently, however, interpreters have raised questions about whether they may be liable if the content of a call is later judged by law enforcement to be illegal, and whether they have the ability or responsibility to protect deaf users from potential scams. Because the Commission's guidance on this issue has been conflicting, Sorenson Communications, LLC ("Sorenson") files this petition for a declaratory ruling to seek clarity. The Commission should clarify that the answer to both questions is no. It is not practical for interpreters to faithfully and accurately interpret a call while simultaneously making split-second judgments about whether the call's content may violate a variety of differing, and sometimes inconsistent, state or federal laws.

As the Commission acknowledged in a 2004 rulemaking, "TRS providers have generally understood that they must relay all calls regardless of content"—even if the call is obscene, "threatens the called party," or "discusses past or future criminal content."[2] The limited guidance from the Consumer and Governmental Affairs Bureau has been consistent with this understanding. In a 2004 Public Notice, the Bureau indicated that under the current rules, a Telecommunications Relay Service ("TRS") provider may not attempt to intervene when it suspects that a caller is engaged in a criminal scam to defraud the called party. The Bureau stated that, although these calls "are illegal, and the Department of Justice and the FBI can investigate, due to the transparent nature of the CA's role in a TRS call the Communications

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1 47 C.F.R. §§ 64.604(a)(2), (3).

2 *Telecomms. Relay Servs. and Speech-to-Speech Servs. for Individuals With Hearing and Speech Disabilities*, Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 19 FCC Rcd. 12,475, 12,572 ¶ 256 (2004) ("*TRS FNPRM 2004*").

Assistant ("CA") may not interfere with the conversation. The TRS statutory and regulatory scheme do not contemplate that the CA should have a law enforcement role by monitoring the conversations they are relaying."[3]

Nevertheless, the Commission's regulations could be read differently. Under 47 C.F.R. § 64.604(a)(2)(ii), VRS interpreters must relay all calls verbatim "to the extent that it is not inconsistent with federal, state or local law regarding use of telephone company facilities for illegal purposes." In adopting this language, the Commission made clear that it did not expect interpreters to be held criminally liable merely for interpreting a call in the ordinary course of business and that an interpreter would need to have "actual notice of an illegal use" before he or she could be criminally liable.[4] Accordingly, Sorenson believes that this language was intended to create a narrow exception that applies only when the interpreter knew—through sources apart from the content of the call—that the call was in furtherance of a crime or actively chose to join the conspiracy by taking action (apart from interpreting the call) to further the crime. But this language could be read much more broadly to require interpreters to terminate a call when they reasonably believe, based solely on the call content, that the call is being placed to further a crime.

This lack of clarity has caused concern for some interpreters, who fear that absent a clear federal standard, Sorenson—or worse, they personally—could face liability under some state's law for interpreting a call that may ultimately facilitate a crime. Accordingly, Sorenson

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[3] *FCC Reminds Public of Requirements Regarding Internet Relay Service and Issues Alert*, Public Notice, 19 FCC Rcd. 10,740, 10,740-41 (2004) ("Public Notice"); *see also Telecomms. Relay Servs. and Speech-to-Speech Servs. for Individuals With Hearing and Speech Disabilities*, Further Notice of Proposed Rulemaking, 21 FCC Rcd. 5478, 5480 ¶ 6 (2006) (citing Public Notice).

[4] *Telecomms. Servs. for Individuals with Hearing and Speech Disabilities*, Report and Order and Request for Comments, 6 FCC Rcd. 4657, 4660 ¶ 15 (1991) ("*TRS 1991 R&O*").

respectfully requests that the Commission clarify that, as a matter of federal law, VRS interpreters must handle all calls—even if the interpreter believes, based solely on the call content, that the behavior of one or more of the callers is unethical or may further criminal activity—and that this rule pre-empts any federal or state law that provides otherwise.

BACKGROUND

When Congress passed the Americans with Disabilities Act in 1990, it sought to ensure that deaf and hard-of-hearing Americans could use the telephone on the same terms as hearing individuals. Consistent with that goal, Congress directed the Federal Communications Commission to adopt regulations that "prohibit relay operators from failing to fulfill the obligations of common carriers by refusing calls" and that "prohibit relay operators from disclosing the content of any relayed conversation."[5] Plainly, two hearing persons using the telephone do not anticipate, in the absence of some lawful process being issued, that the telephone company is monitoring their communications for potential unlawful or unethical conduct. In 1991, the Commission implemented these directives.[6] It adopted 47 C.F.R. § 64.604(a)(2), which required that CAs "must relay all conversation verbatim" and provided that "CAs are prohibited from disclosing the content of any relayed conversation regardless of content."[7]

In the proceeding that led to these rules, the Commission specifically considered how relay operators should respond to calls that appeared to involve illegal content. In the Notice of Proposed Rulemaking that opened the proceeding, the Commission acknowledged the possibility

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5 47 U.S.C. § 225(d)(1)(E), (F).

6 *See TRS 1991 R&O*, 6 FCC Rcd. at 4657.

7 *Id.* at 4668 (47 C.F.R. § 64.604(a)(2)).

that TRS calls could involve conversations that are "violative of state or federal law, *e.g.*, those that are obscene or involve criminal activity that the operator would wish to report to authorities"[8] and sought comment on how providers should handle such calls. It tentatively concluded, however, that "Congress has mandated that relay operators may not intentionally alter a relayed conversation, no matter what that conversation contains, or reveal its contents."[9]

In the subsequent order adopting the confidentiality rule, the Commission once again considered how relay operators should respond to calls that appear to involve illegal conduct. It stated that Congress "intended relay operators to have the same service obligations as common carriers generally" and noted that the common-carrier obligation "is not absolute and does not necessarily apply to service for an illegal purpose."[10] But the Commission also emphasized its understanding that a relay operator would not normally be criminally liable for handling a call that furthers a crime:

> As a practical matter, however, common carriers generally will not be criminally liable absent knowing involvement in unlawful transmissions. We have had occasion to address similar issues in connection with a different common carrier service. "[A]lthough telephone common carriers do not appear to enjoy absolute immunity from liability if their facilities are used for an illegal purpose, there must be a high degree of involvement or actual notice of an illegal use and failure to take steps to prevent such transmissions before any liability is likely to attach." Use of Common Carriers, 2 FCC Rcd at 2820. In addition, we stated that carriers must be "knowingly" involved to be criminally liable. Id. We believe that CAs, in the normal performance of their duties, would generally not be deemed to have a "high degree of involvement or actual notice of an illegal use" or be "knowingly" involved in such illegal use. We also note that, as a practical matter, the extensive record in this proceeding suggests that actual incidents raising these questions will arise rarely, if ever.[11]

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8 *Telecomms. Servs. for Hearing-Impaired and Speech-Impaired Individuals*, Notice of Proposed Rulemaking, 5 FCC Rcd. 7187, 7190 ¶ 17 (1990).

9 *Id.*

10 *TRS 1991 R&O*, 6 FCC Rcd. at 4660 ¶ 15.

11 *Id.*

Following adoption of the rule, carriers responded by asking for a more definite statement that interpreters cannot be held criminally liable for interpreting a call in the ordinary course of business. Specifically, NYNEX—supported by USTA, Sprint, and GTE—filed a petition for reconsideration asking the Commission to codify in its rules "that CAs 'shall not be deemed' to be knowingly involved in any illegal conversations."[12] In response, the Commission reiterated that "we continue to believe a CA generally would not be deemed to be knowingly involved in illegal use. We will, however, amend the rule to reflect that there is an exception to the requirement to complete all calls where such completion would be inconsistent with federal, state or local law regarding use of telephone company facilities for illegal purposes."[13] The Commission therefore amended section 64.604 to provide that interpreters must interpret all calls verbatim "to the extent that it is not inconsistent with federal, state or local law regarding use of telephone company facilities for illegal purposes."[14]

The Commission appears to have adopted this language to clarify that interpreters do not have absolute immunity if they engage in conduct that goes above and beyond interpreting a call in the ordinary course of business. And the Commission explicitly reiterated its belief that an interpreter would not face liability merely for interpreting a call. However, the Commission did not explicitly state that it was pre-empting or repealing any laws that would otherwise impose liability merely for interpreting a call. As a result, some VRS interpreters have expressed concern that an overly aggressive prosecutor could attempt to hold them criminally liable for

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[12] *Telecomms. Servs. for Individuals with Hearing and Speech Disabilities*, Order on Reconsideration, Second Report and Order, and Further Notice of Proposed Rulemaking, 8 FCC Rcd. 1802, 1805 ¶ 15 (1993).

[13] *Id.* ¶ 17.

[14] *Id.* ¶ 18.

interpreting calls that discuss criminal activities—essentially on a theory that the interpreter has aided or abetted the commission of a crime merely by interpreting a conversation in which one party may have perpetrated a crime.

The interpreters' concern is understandable. Unlike employees of a telephone company, VRS interpreters know the content of every call that crosses a VRS provider's network and may suspect, based on that content, that a call is unethical or even furthering a crime. Whether background federal or state criminal law would impose liability under those circumstances turns out to be surprisingly complicated. Federal law governing the standard for aiding-and-abetting liability is "generally in a state of confusion,"[15] and as Justice Alito recently acknowledged, the Supreme Court has recently declined to resolve the confusion, leaving "our case law in the same, somewhat conflicted state that previously existed."[16] Moreover, some states continue to apply an antiquated standard for aider-and-abettor liability under which a merchant can be found criminally liable for serving a customer in the ordinary course of business if the merchant knows that the customer intends to use the seller's services to commit a crime.[17] Under this standard, an

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[15] Benton Martin and Jeremiah Newhall, *Technology and the Guilty Mind: When Do Technology Providers Become Criminal Accomplices?*, 105 J. Crim. L. & Criminology 95, 124 (Winter 2015) (citing Wayne R. LaFave, *Substantive Criminal Law* § 13.2(e) (2d ed. 2003)); *see also* Baruch Weiss, *What Were They Thinking?: The Mental States of the Aider and Abettor and the Causer Under Federal Law*, 70 Fordham L. Rev. 1341, 1351 (Mar. 2002) (concluding that federal aiding-and-abetting law is in "a state of chaos—a chaos to which the cases seem oblivious").

[16] *United States v. Rosemond*, 134 S. Ct. 1240, 1253 (2014) (Alito, J., dissenting in part).

[17] This permissive view of aider-and-abettor liability originated with *Backun v. United* States, a federal case that has since been rejected by the federal courts. *See Backun v. United States*, 112 F.2d 635, 637 (4th Cir. 1940) ("The seller may not ignore the purpose for which the purchase is made if he is advised of that purpose, or wash his hands of the aid that he has given the perpetrator of a felony by the plea that he has merely made a sale of merchandise. One who sells a gun to another knowing that he is buying it to commit a murder, would hardly escape conviction as an accessory to the murder by showing that he received full price for the gun."); *United States v. Fountain*, 768 F.2d 790, 797-98 (7th Cir. 1985) (noting that some states still appear to apply the standard articulated by *Backun* but that under federal

aggressive prosecutor might argue that interpreters had the requisite knowledge to support aiding-and-abetting liability based solely on the content of conversations they are interpreting. This is because, in some states, the statutes defining knowledge could be read to include a mere belief that the conversation likely involves a crime.[18]

The legal confusion is compounded further by the fact that interpreters are not necessarily located in the same state—or even country (Sorenson has some interpreting centers in Canada)—as the calling and called parties. There is no reason in the course of an ordinary call that an interpreter needs to know where the caller is located—and with an IP-based service, as well as mobile devices, the telephone number will not be a reliable indicator of location. To have a

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law, "it came to be generally accepted that the aider and abettor must share the principal's purpose in order to be guilty of violating 18 U.S.C. § 2, the federal aider and abettor statute."). However, some states still appear to apply the standard articulated in *Backun*. *See, e.g.*, *People v. Robinson*, 715 N.W.2d 44, 53 (Mich. 2006) (permitting aider-and-abettor liability if "the defendant intended to aid the charged offense, knew the principal intended to commit the charged offense, or, alternatively, that the charged offense was a natural and probable consequence of the commission of the intended offense"); *State v. Tangie*, 616 N.W.2d 564, 574 (Ia. 2000) ("When, as here, intent is an element of the crime charged, a person may be convicted on a theory of aiding and abetting if she participates with either the requisite intent, or with knowledge the principal possesses the required intent."); *State v. Brunzo*, 248 Neb. 176, 194-95 (1995) ("when a crime requires the existence of a particular intent, an alleged aider or abettor can be held criminally liable as a principal if it is shown that the aider and abettor knew that the perpetrator of the act possessed the required intent or that the aider and abettor himself or herself possessed such."); *Wright v. State*, 402 So. 2d 493, 499 (Fla. Dist. Ct. App. 1981) ("we find the rule in Florida to be that aiders and abettors may be convicted either upon proof of their own state of mind or upon proof that they knew that the person aided had the requisite state of mind").

[18] For example, under Arizona's criminal code, a person knows of a circumstance if he "is aware or believes . . . that the circumstance exists." Ariz. Rev. Stat. Ann. § 13-105. In New Jersey, a person has knowledge if "if he is aware . . . such circumstances exist, or he is aware of a high probability of their existence." N.J. Stat. Ann. § 2C:2-2. In Ohio, "[a] person has knowledge of circumstances when the person is aware that such circumstances probably exist." Ohio Rev. Code Ann. § 2901.22. Moreover, other states have passed "criminal facilitation" statutes which provide that a person is guilty of a crime if, "believing it probable that he is rendering aid . . . to a person who intends to commit a crime, he engages in conduct which provides such person with means or opportunity for the commission thereof and which in fact aids such person to commit a felony." N.Y. Penal Law § 115.00.

seamless, nationwide service, as a practical matter there can be only one standard that applies. Any other result would frustrate the federal objective of a nationwide, functionally equivalent and widely accessible VRS service.

ARGUMENT

THE COMMISSION SHOULD CLARIFY THAT ITS RULES PRE-EMPT ANY STATE OR FEDERAL LAW TO THE EXTENT THAT IT WOULD IMPOSE LIABILITY FOR INTERPRETING A CALL IN THE ORDINARY COURSE OF BUSINESS.

The Commission has stated that it does not intend for providers to act as censors of VRS calls[19] and that it does not contemplate that relay interpreters will be held criminally liable merely for interpreting, in the ordinary course of business, a call that appears to involve criminal conduct.[20] However, the only regulation addressing this issue creates substantial uncertainty on this issue. Because section 64.604(a)(2)(ii) requires providers to interpret calls verbatim only "to the extent that it is not inconsistent with federal, state or local law regarding use of telephone company facilities for illegal purposes," an overly aggressive local prosecutor could attempt to argue that a VRS interpreter must not handle a call if that interpreter believes that it is likely, based solely on the content of the call, that the call involves criminal activity. This does not appear to be what the Commission intended. Accordingly, pursuant to section 5(d) of the Administrative Procedure Act and 47 C.F.R. § 1.2, the Commission should "issue a declaratory ruling terminating a controversy or removing uncertainty"[21] and should clarify that its rules pre-empt any state law and repeal any federal law that would lead to that result.

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19 *TRS FNPRM 2004*, 19 FCC Rcd. at 12,572 ¶ 257 ("We stated, however, that CAs are intended to be 'transparent conduits relaying conversations without censoring or monitoring functions,' and that section 225 provides that CAs may not divulge the content of any relayed conversation.").

20 *TRS 1991 R&O*, 6 FCC Rcd. at 4660 ¶ 15.

21 47 C.F.R. 1.2(a); *see also* 5 U.S.C. § 554(e).

State laws governing common-carrier liability more generally create substantial uncertainty on this point. At common law, in cases arising in an entirely differently technological context, "[a] public utility has not only a right but a duty to refuse to render service for criminal purposes."[22] And, particularly in older cases, some prosecutors seem to have interpreted this requirement to mean that if a common carrier is aware of call content and believes that content to be illegal, it must terminate service. Because telephone companies do not typically know the content of calls they carry, this issue has arisen most frequently for common carriers such as telegraph operators, who know the content of messages being transmitted. For example, in *State v. Western Union*,[23] Western Union and the manager of one of its facilities were convicted of operating a common-law disorderly house for transmitting telegrams that contained wagers on horse races and for wiring money involved with these wagers. A prosecutor had told the branch manager that he believed the conduct was illegal, but the company had argued that as a common carrier, it was required to accept the telegrams.[24] At trial, Western Union also argued that requiring it to assess whether messages were criminal was impractical because "it could not find employees with necessary legal knowledge to apply all the laws of the State relating to criminal and unlawful activities" and because analyzing messages would slow down the transmission of messages.[25] But the New Jersey Supreme Court upheld the conviction.

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[22] *Andrews v. Chesapeake & Potomac Tel. Co.*, 83 F. Supp. 966, 968 (D.D.C. 1949); *accord Rubin v. Pa. Pub. Util. Comm'n*, 197 Pa. Super. 157, 162-63 (1962).

[23] 12 N.J. 468 (1953).

[24] *Id.* at 477.

[25] *Id.* at 479.

Similarly, in *Sprint Corp. v. Evans*,[26] the State of Alabama sought to prosecute Sprint for obscenity because one of its 1-800 subscribers was running a phone-sex hotline. Sprint had received consumer complaints about the hotline and had allegedly called the hotline to investigate, but it had not taken further action. Alabama argued that because Sprint had become aware of the content of the messages and had not stopped them, it was guilty of aiding and abetting the distribution of obscene materials.[27] After Sprint filed a declaratory-judgment action, a federal judge referred the case to the FCC to determine whether Sprint could be held criminally liable under federal law,[28] but the Commission does not appear to have resolved the issue, leaving substantial uncertainty on the issue.

And recent federal prosecutions outside of telecommunications have created uncertainty under federal law, as well. For example, the federal government recently entered a consent decree with UPS and indicted FedEx for carrying packages shipped by Canadian Internet

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[26] 846 F. Supp. 1497, 1500 (M.D. Ala. 1994).

[27] *Id.* at 1502-03 (noting that "[u]nder Evans's current theory, it would be illegal for a common carrier such as Sprint knowingly to aid and abet a subscriber in its distribution of obscene materials" and quoting the following allegations from the State's brief: "Indeed, that evidence suggests that Sprint received consumer complaints that at least one of the 800 telephone numbers covered by the grand jury subpoena (and used by one of the indicted information providers) was used to transmit messages that were obscene, sexually explicit or otherwise offensive or 'adult' in content; a Sprint representative called the telephone number at issue, listened to the messages and made his own informal determination that the messages were 'dirty,' *i.e.*, of a sexually explicit or 'adult' nature; and that the information provider continued to use Sprint services to transmit such messages....").

[28] *Id.* at 1504 (question (d)); *id.* at 1509 ("The court, therefore, will refer issues 'a' through 'e' to the FCC and direct Evans to file a petition for declaratory relief for a determination of these issues by the FCC.").

pharmacies.[29] The government's theory appears to have been that FedEx and UPS—both of whom are common carriers—knew that the packages they were carrying contained prescription drugs shipped without a prescription.

Of course, none of these other cases involved a service in which Congress had mandated that the service be provided in a manner functionally equivalent to hearing-to-hearing telephone service. Certainly a telegraph is not functionally equivalent to hearing telephone service, and neither is shipment of packages by UPS and FedEx. And while the Sprint case involved hearing telephone service, its facts are *sui generis* and certainly not comparable to the role of video interpreters. Whether those cases were right or wrong, the mandate of functional equivalence requires a clearer and different, uniform national scheme.

The lack of clarity in both the common law and the Commission's ambiguous rulings has put VRS providers and their interpreters in an unfair bind. On the one hand, based on conversations with the Consumer and Governmental Affairs Bureau, Sorenson believes that it may face FCC enforcement action if it terminates calls. On the other hand, some of Sorenson's interpreters have expressed fear that they could be criminally prosecuted if calls they handle turn out to be furthering a crime. These fears complicate that already-difficult job of an interpreter, and unaddressed will make it difficult for VRS provider to recruit and retain badly needed interpreters.

Accordingly, the Commission should clarify that VRS interpreters are required to interpret *all* calls—even calls that they believe may include unethical behavior by either party, or

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[29] *See* Press Release, Dep't of Justice, UPS Agrees to Forfeit $40 Million In Payments From Illicit Online Pharmacies For Shipping Services (Mar. 29, 2013), https://www.justice.gov/usao-ndca/pr/ups-agrees-forfeit-40-million-payments-illicit-online-pharmacies-shipping-services; Superseding Indictment, United States v. FedEx Corp., No. 3:14-cr-00380-CRB (N.D. Cal. Aug. 14, 2014).

in the more extreme, facilitate criminal activity. The alternative—requiring interpreters to monitor call content and terminate calls that appear to be unethical or illegal—violates the principles of functional equivalency, would be impossible to administer, and interferes with the important principle of confidentiality. Absent a court order or some other legal process, hearing callers ordinarily do not have their calls monitored by government-appointed third parties to determine whether the conversation is illegal. Further, hearing callers do not have third parties making judgments as to whether one party may be taking unfair advantage of another. Most importantly, VRS interpreters generally lack the legal training to determine whether call content is consistent with the law of a particular combination of jurisdictions, including where the calling and called parties are located, and where the interpreter is located. Indeed, VRS interpreters generally do not even know the locations of the callers for whom they interpret.

Moreover, Sorenson operates more than 100 call centers in 43 states of the United States, 5 provinces in Canada, and Puerto Rico. Calls are distributed automatically to these call centers in compliance with the Commission's rules requiring generally that they be answered in the order received—which means that calls are essentially randomly distributed. In such an FCC-mandated system, it is literally impossible to construct a compliance system to match all the possible combinations of laws of 50 states, the District of Columbia and Puerto Rico, plus federal law, and forcing providers to do so would threaten the very existence of VRS (or indeed, any form of TRS). Accordingly, attempting to enforce compliance with all state laws would frustrate the core purpose of section 225—to make available a nationwide, functionally equivalent TRS service.

Perhaps most importantly, any exception to the rule of strict confidentiality of VRS calls would cause callers to fear that their calls were being broadly monitored. Deaf and speech-

impaired individuals cannot, consistent with functional equivalence and the core purposes of the Americans with Disabilities Act, be subject to a lower expectation of privacy than hearing users of the ordinary telephone system. Any legal regime that leads deaf and hearing-impaired consumers to believe they have less privacy than hearing users of the telephone network violates functional equivalence.

CONCLUSION

The Commission should clarify that its rules preempt state or federal law to the extent that it would impose liability for interpreting a call in the normal course of business.

Respectfully submitted,

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Dated: November 8, 2016

Counsel for Sorenson Communications LLC

EXHIBIT C

DECLARATION OF GRANT A. BECKMANN

I, Grant A. Beckmann, do hereby, under penalty of perjury, declare and state as follows:

1. My name is Grant A. Beckmann. I am the CTO, Security, Compliance, for Sorenson Communications, LLC, which is based in Salt Lake City. I have held this position since 2016. I have also served as Vice President of Engineering at Sorenson from 2010 through 2016. I received BS degree from Brigham Young University, Provo, Utah.

2. As part of its VRS operations, Sorenson's systems need to be able to interact with certain databases managed by other entities that are necessary for the routing of VRS calls. I have personally managed Sorenson's efforts in this regard, including the development and implementation of technical capabilities needed to interact with the VRS User Registration Database ("URD") and the VRS Numbering Database.

3. In the course of my responsibilities, I have communicated with the TRS Fund Administrator, RolkaLoube, which will manage the URD when it is running. I have also communicated with Neustar, Inc., the Numbering Administrator. As part of these communications, RolkaLoube and Nuestar have given me technical information about how their databases will operate. In particular, I have spoken with RolkaLoube and Neustar about how new VRS user data will be propagated through the URD and Numbering Directory once the URD is operational.

4. Based on my personal knowledge of Sorenson's systems and my conversations with RolkaLoube and Neustar, I have the following understanding about how new VRS user data will be propagated to the URD and Numbering Directory.

5. When a new VRS user registers with Sorenson, Sorenson will record the required information needed to populate the URD. Sorenson then must provide that information to the URD Administrator. Currently, the URD Administrator is unable to receive user data in real-time. Thus, Sorenson must manually upload new user files to the URD Administrator. Sorenson does this several times a day.

6. The URD Administrator has advised Sorenson that in the first 60 days that the URD is running, it will only process new user files twice a day. After the first 60 days of the URD, the Administrator will process new files every hour at the top of the hour. Processing new files consists of verifying users' information through LexisNexis, and can take up to one hour.

7. Thus, once the URD is running and processing files hourly, it can take up to almost two hours for a new user to propagate to the URD. To illustrate my understanding, if Sorenson uploads a file containing new users at one minute past the hour (thus, immediately after

the URD Administrator processed the previous hour's uploads), the URD Administrator will not process those new uploads until the top of the next hour, or 59 minutes later. It could then take an additional hour to process those uploads and propagate them to the database. Thus, the new users would not be added to the URD until one 1 hour and 59 minutes after Sorenson uploaded their data to the URD Administrator.

8. Once the URD Administrator processes new users, it returns the results to Sorenson in a file, and also updates its web app. The web app allows Sorenson to audit its internal database and verify that it matches the URD. However, Sorenson does not need access to the web app to route calls. The URD Administrator has advised Sorenson that its ultimate goal is to return confirmation files and update its web app at the same time; however, it currently takes up to one day to update the web app.

9. After the URD Administrator has verified a new caller's information, it must upload that data to the Numbering Administrator. There are two methods available to the URD Administrator for doing so: a real-time method, and a bulk method. Sorenson cannot control which method the Numbering Administrator chooses.

10. Under the real-time method, new files can be uploaded and propagated to the Numbering Directory within about five minutes. But with the bulk upload method, new files will be uploaded to the Numbering Administrator as part of the hourly processing that the URD Administrator performs every hour at the top of the hour. The Numbering Administrator then processes newly uploaded data every hour, five minutes past the top of the hour.

11. Once the Numbering Administrator retrieves the latest bulk data uploads from the URD Administrator, it can take up to an additional 20 minutes to process large files, plus an additional five minutes for a new user to propagate to the Numbering Directory. Thus, when the URD Administrator bulk uploads new data to the Numbering Administrator, it can take up to an additional 30 minutes for that data to propagate to the Numbering Directory: 5 minutes to wait for the Numbering Administrator's next processing cycle, 20 minutes to process the file, and an additional 5 minutes to propagate that file to the Numbering Database.

12. Thus, from the moment Sorenson uploads new user information to the URD Administrator, it can take almost 2 hours and 30 minutes for that data to propagate to the Numbering Directory: up to 59 minutes to wait for the next URD processing cycle; up to 1 hour for the URD administrator to process the data; up to 5 minutes to wait for the next Numbering Administrator processing cycle; up to 20 minutes for the Numbering Administrator to process the file; and up to 5 additional minutes to propagate that data to the database. Plus, if the URD Administrator finishes processing a file before the top of the hour, it will not upload the data to

the Numbering Administrator until the top of the next hour, adding that additional time to the total time it takes to finish propagating new user data.

13. The Numbering Administrator has advised Sorenson that, once the FCC instructs providers to begin validating all VRS calls, if any call cannot be validated, the Numbering Administrator will not return any numbering data, making it impossible for Sorenson to deliver a the call. A call will not be validated if it fails any of three conditions: (1) the service listed (i.e. VRS or IP CTS) is not the same in the iTRS Directory and the URD or the number is not in the URD; (2) the default provider listed in the URD does not match the owner of record in the iTRS Directory; or (3) the URD status is invalid. Thus, if any of those conditions are not met, even due to an error beyond the control of Sorenson or a user, the Numbering Administrator will not provide routing information and Sorenson will not be able to deliver a call, even if the caller is a valid VRS user.

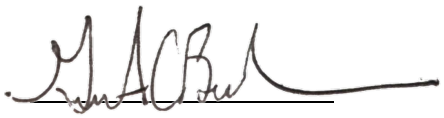
14. In the course of my responsibilities at Sorenson, I am also familiar with Sorenson's provision of VRS service to enterprise and public phones. I am familiar with the technology involved in this service, as well as the issues enterprise and public phones present. I am also familiar with Sorenson's management's understanding of these issues.

15. To the best of my knowledge, Sorenson's management is not aware of a single case of an ineligible user attempting to place a VRS call on a public or enterprise phone.

16. Sorenson's user interfaces for enterprise and public phones currently do not support user names and passwords. If the Commission were to require users of public and enterprise phones to enter a username and password before placing a call, Sorenson would be required to develop new user interfaces for those phones.

17. Such an undertaking would require at least 12 to 18 months, and would divert engineering resources from other efforts Sorenson is engaged in, including implementing SIP, RUE, and address book portability. Sorenson also estimates that modifying its interface to accommodate a username/password requirement could cost between $500,000 and $1 million.

Executed on May 25, 2017.



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